The Psychosocial Impacts of Driving Cessation in Later Life: Experiences, Coping, and Well-being

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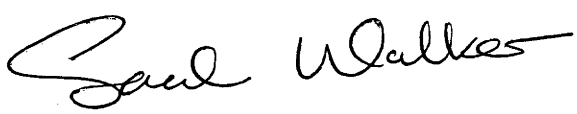
Declaration

I declare that this thesis reports my original work, that no part has been previously accepted and presented for the award of any degree or diploma from any university, and that to the best of my knowledge, no material published or written by any other person is included, except where due acknowledgement is given. This project was conceptualised, all chapters drafted, and analysis undertaken by this candidate. Professor Kaarin Anstey, Dr Tim Windsor and Dr Jay Brinker supervised this candidate providing invaluable direction and feedback. Dr Tim Windsor, Tram Dinh, Iris Carter, and Dr Caroline Blink assisted with the validation process involved in the qualitative studies.



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Thesis Abstract

Older adults may face multiple and often overwhelming losses when they give up driving, creating a need for adjustment (e.g., Adler & Rottunda, 2006; Bedard & Kafka, 2008; Liddle, Turpin, Carlson, & McKenna, 2008). Furthermore, driving cessation is related to poorer psychological well-being (Fonda, Wallace, & Herzog, 2001; Marottoli et al., 1997; Ragland, Satariano, & MacLeod, 2005; Windsor, Anstey, Butterworth, Luszcz, & Andrews, 2007). This thesis focuses on the impacts of no longer driving on psychological well-being among an Australian population aged 65 years and above. Driving cessation literature is reviewed and embedded within the general context of older adult driving research. The Stress-Coping paradigm framework is adopted to better understand poorer well-being in relation to the post-cessation phase of driving within a broad spatial and temporal context. Self-Determination Theory (Deci & Ryan, 2000a, 2000b; Ryan, 2009) and the Assimilative and Accommodative Model of Coping (Brandtstädter & Renner, 1990a, 1992) provide the theoretical foundations from which to examine the driving status-well-being relationship. Questions addressed include: What are the subjective experiences of older adults who have given up driving? Why is it that some older adults experience poorer well-being after driving cessation while others do not? This research employed qualitative and quantitative methodologies. All participants were aged 65 years and older. Five ex-drivers participated in a focus group discussion on their subjective experiences of driving cessation and 12 ex-drivers were interviewed about the circumstances surrounding giving up driving and their post-driving cessation experiences. In the hypothesis testing phase, 517 participants (drivers and ex-drivers) were surveyed on expectations/experiences of giving up driving, sociodemographic and health characteristics, the availability of alternative transport, satisfaction of psychological

needs, ways of coping, and well-being. The main findings of the qualitative studies indicate the timing and circumstances under which older adults give up driving may influence post-cessation experiences. Reduced sense of autonomy, relatedness and competence post-cessation, loss of independence, sense of burden and indebtedness, frustration and worry, and personal growth were reported. Reported coping strategies involved intentionally transforming unsatisfactory conditions and/or the adjustment of preferences and goals. Patterns emerged of interrelationships between sociodemographic characteristics and themes. The quantitative study found, after controlling for sociodemographic and health related variables, driving status was not related to well-being. Pressure to cease driving predicted more negative post-cessation experiences. More negative post-cessation experiences predicted poorer well-being. Ex-drivers who self-reported the adjustment of preferences and goals experienced fewer depressive symptoms and more positive affect. Availability of alternative transport failed to moderate the relationship between driving status and well-being. These findings reveal much of the complexity of driving-cessation experiences, which should be considered in the formulation and provision of post-cessation interventions targeting ex-driver well-being. The Cognitive Behaviour Therapy (CBT) (A. T. Beck & Alford, 2009; A. T. Beck, Rush, Shaw, & Emery, 1979; J. S. Beck, 1995) and Acceptance and Commitment Therapy (ACT) (Luoma et al., 2007) approaches to the conceptualisation and treatment of depressive symptoms generally, and specifically among older ex-drivers, and implications for policy makers are discussed.

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CHAPTER 1: LITERATURE REVIEW

1.1 Abstract

Private vehicles are the primary mode of transportation among Australians (Australian Bureau of Statistics, 2013b). The car is a symbol of freedom, independence, and status (Jensen, 1999). It offers convenience, speed, comfort, independence, prestige, and protection from others, the environment and the stigma of old age (Eisenhandler, 1990; Hiscock, Macintyre, Kearns, & Ellaway, 2002; Knight, Dixon, Warrener, & Webster, 2007; Tertoolen, van Kreveld, & Verstraten, 1998). Quantitative methods studies reveal ex-drivers may face multiple and often overwhelming losses, creating a need for adjustment (e.g., Adler & Rottunda, 2006; Bedard & Kafka, 2008; Dellinger, Sehgal, Sleet, & Barrett-Connor, 2001; Liddle et al., 2008; Shope, 2003). Quantitative methods studies suggest driving cessation is related to poorer well-being (Fonda et al., 2001; Marottoli et al., 1997; Ragland et al., 2005; Windsor et al., 2007), which is explained in part by lower perceived control (Windsor et al., 2007). This thesis focuses on the impacts of no longer driving on well-being, among an Australian population aged 65 years and above. This chapter reviews the driving cessation literature, embedded in the general context of older adult driving research. Particular attention is given to the experiences of older adults who have given up driving and the psychological impacts of driving cessation.

CHAPTER 1: LITERATURE REVIEW

1.2 Introduction

Private vehicles are the primary mode of transportation among Australians (Australian Bureau of Statistics, 2013b) and over 54% of adults aged 65 years and above continue to drive (Ross et al., 2009). The majority of drivers who stop driving are aged between 65 and 74 years (Foley, Heimovitz, Guralnik, & Brock, 2002) and in Australia there are approximately 3 million people in this age range (Australian Bureau of Statistics, 2013a). By the age of 85 and older the proportion of older adults still driving is reduced to approximately 37% of men and only 5% of women (Ross et al., 2009). Based on current life expectancy, men aged 70 years and women aged 74 years can expect to live for approximately 7 and 10 years (respectively) without being able to drive a car (Foley et al., 2002). This suggests, as life expectancy increases, there will be increases in the period of time many older adults have to live without the benefits of driving, (benefits such as: convenience, speed, comfort, and protection from others, as well as independence and prestige: Hiscock et al., 2002; Knight et al., 2007; Tertoolen et al., 1998); unless older adults give up driving later in life or the benefits of driving are found elsewhere. Of greater significance is the increasingly large number of Australian adults expected to reach 65 years of age in the coming decades (Australian Bureau of Statistics, 2009). This is representative of a global phenomenon; the number of older adults (aged 60 years or over) passed 841 million in 2013 and is expected to pass 2 billion in 2050 (Department of Economic and Social Affairs, 2013). There will be an unprecedented number of older adults facing driving cessation over the next 30 years and this will have significant long-term social and policy implications.

This thesis focuses on the effects of being an ex-driver on well-being, among older adults in Australia. Older adult ex-drivers are defined as adults over the age of 65 years who have stopped driving for at least one month and would not drive again.

Commonly cited experiences of no longer driving are: loss of independence, loss of spontaneity, and difficulty performing daily tasks, such as going shopping (M. J. Bauer, Rottunda, & Adler, 2003; Bonnel, 1999a; RACV, 2009). Driving cessation is believed to lead to increased loneliness, isolation, loss of autonomy, an increased sense of being disabled, and feelings of regret (e.g., M. J. Bauer, Adler, Kuskowski, & Rottunda, 2003; Bedard & Kafka, 2008; Carp, 1971; Cutler, 1972; Fonda et al., 2001; J. A. Kelley-Moore, J. G. Schumacher, E. Kahana, & B. Kahana, 2006) and is associated with poorer physical health (Bedard & Kafka, 2008; Edwards et al., 2008), increased risk of entry into long-term care (E. E. Freeman, Gange, Muñoz, & West, 2006), increased risk of mortality (Edwards, Perkins, Ross, & Reynolds, 2009), increased depressive symptoms (Legh-Smith, Wade, & Hewer, 1986; Marottoli et al., 1997; Ragland et al., 2005; Windsor et al., 2007), and emotional distress (Adler & Rottunda, 2006; Bonnel, 1999a; J. E. Johnson, 1999; RACV, 2009; Whitehead, Howie, & Lovell, 2006). These findings suggest no longer driving creates numerous challenges and ex-drivers struggle to meet their needs that were once met by driving. There are, however, a number of weaknesses and omissions in the research. The majority of qualitative driving cessation studies lack methodological rigour. Quantitative method studies do not explain why driving cessation is experienced negatively, and do not explain why some older adults do not experience driving cessation negatively. None of the research has investigated the potential for positive impacts of driving cessation.

Data for this thesis are collected from a cohort of older ex-drivers and drivers to obtain a more complete picture of the driving cessation experience and some of the methodological issues and gaps in the driving cessation research are addressed. A more comprehensive picture of driving cessation, including positive experiences, is explored through qualitative and quantitative methods. Factors that may affect the driving cessation-depression relationship, such as driving cessation experiences, are taken into

consideration, and interventions for post-driving cessation depressive symptomology are discussed. In addition, attention has been given to the mechanism(s) that link driving cessation to poorer well-being, which are explored in the context of Self-Determination Theory (Deci & Ryan, 2000a, 2000b). Finally, unique to this research, protective factors affecting the relationship between driving cessation and poorer well-being are explored, using the Assimilative and Accommodative Model of Coping (Brandtstädter & Renner, 1990a, 1992; Brandtstädter & Rothermund, 2002). Furthermore, the effect of access to alternative transport is explored to see if this, in part, explains why some older adults do not experience poorer well-being following driving cessation.

This chapter reviews the driving cessation literature, paying particular attention to the experiences of older adults who have given up driving and the psychological impacts of driving cessation. Driving cessation experiences are divided into three driving phases: the pre-decision phase, the decision phase, and post-cessation (Liddle, McKenna, & Bartlett, 2007). Continuing to drive is a key feature of the pre-decision phase when no consideration is given to driving cessation; however, changes in driving performance occur. During the decision phase, driving cessation occurs. The final phase, the post-cessation phase, is the period of adjustment following driving cessation. This final phase is the focus of this research project.

In this literature review, driving cessation is embedded in the general context of older adult driving research. Pre-decision phase and decision phase research concerned with safety issues, changes in driving behaviours, factors influencing the decision to give up driving, and predictors of driving cessation are briefly discussed. Post-cessation research findings, in particular the association between no longer driving and increased depressive symptoms, are discussed and critiqued in greater depth. The conceptual

framework, models, and theories which provide this thesis with its structure and boundaries are discussed in Chapter 2.

In subsequent chapters, this thesis addresses two broad questions. The first, what are the subjective experiences of older adults after driving cessation? The second, why is it that some older adults experience poorer well-being after driving cessation while others do not? To address some of the limitations of the current body of driving cessation research, this thesis aims to explore five key aspects of driving cessation and its consequences. First, in response to the negative focus and descriptive nature of the research, the first two studies seek a more balanced view and deeper understanding of the experience of no longer driving, including any positive experiences. Chapters 3 and 4 report Study One and Study Two, respectively. Chapter 5 details Study Three, which explores the extent to which driving status (whether one continues to drive or whether one has given up driving) predicts multiple domains of well-being; in addition to negative outcomes, positive affect and life satisfaction are considered. Second, driving cessation precipitating factors are examined to see whether they predict ex-drivers' experiences of driving cessation. In turn ex-drivers' experiences of driving cessation are expected to predict well-being. Third, need satisfaction is explored to better understand the mechanisms underpinning the driving cessation-well-being relationship. Fourth, two different modes of coping are explored to see whether they provide a protective influence on the relationship between driving status and well-being. And fifth, ecological factors, such as the availability of public transportation, are explored to determine what influence they have on the relationship between driving cessation and well-being.

In chapter 6, post-driving cessation depressive symptomology is conceptualised from two perspectives: the Cognitive Theory of Depression (A. T. Beck & Alford,

2009; A. T. Beck et al., 1979) and the Acceptance and Commitment Therapy (ACT) framework. Post-cessation interventions based on these theories are discussed.

CHAPTER 1: LITERATURE REVIEW

1.3 Driving Research

The car, a cultural phenomenon, is a symbol of freedom, independence, and status (Jensen, 1999). The benefits of private transportation and driving include: convenience, speed and comfort; protection from others, the environment, and the stigma of old age; and independence and prestige (Eisenhandler, 1990; Hiscock et al., 2002; Knight et al., 2007; Tertoolen et al., 1998). It follows that car ownership and driving would be associated with positive well-being (Cvitkovich & Wister, 2001), better health, (though, in part, car ownership is likely an indication of higher socioeconomic status), and improved perceived quality of life (Banister & Bowling, 2004; Ellaway, Macintyre, Hiscock, & Kearns, 2003; Jensen, 1999; Macintyre, Hiscock, Kearns, & Ellaway, 2001; Marmot et al., 1991; G.D Smith, M. J Shipley, & G Rose, 1990). Older drivers express strong emotional feelings regarding the importance of driving, in particular the feelings of independence, self-esteem, sense of mastery, and autonomy that driving affords (Carp, 1971; Ellaway et al., 2003; Hiscock et al., 2002). Older adult drivers who become ex-drivers may lose many of the benefits of private transportation, especially those benefits that cannot be obtained elsewhere (Davey, 2007). This suggests giving up driving will be challenging and emotionally distressing for individuals who miss the benefits of car ownership and driving.

The growing body of older adult driving cessation research has concentrated on three main areas: safety issues, predictors of driving cessation, and the physical and psychological well-being consequences of driving cessation (Choi, Adams, & Mezuk, 2012).

1.3.1 Safety Issues

"The best car safety device is a rear-view mirror with a cop in it."

(Dudley Moore, 1935 - 2002)

1.3.1.1 Road use and safety

The number of vehicles and distance travelled on Australian roads trebled between 1970 and 2009; despite this, the trend in the number of road deaths has been downward (International Traffic Safety Data and Analysis Group, 2011). However, older drivers, aged 65 plus, are more likely to experience serious injury and death as a result of a road traffic accident than any other age group (Australian Bureau of Statistics, 2012), and are ranked second highest for road fatalities, representing 19% of total driver fatalities on Australian roads (Department of Infrastructure and Transport, 2012). While young adults have a higher rate of road deaths (22%), under the same crash circumstances, a 75 year old is four times more likely to suffer serious injuries compared with younger adults, or suffer minor injuries where a younger adult experiences none (Government of South Australia, 2010). Furthermore, older adult drivers' crash rates involving a fatal outcome are substantially higher than any other age group when distance travelled is taken into account (See Figure 1).

At around 65 years of age major changes in driving safety occur, and at around age 75 those changes become more pronounced. Those aged 75 and over are at the greatest risk of death or injury. Physical changes (Li, Braver, & Chen, 2003) and/or cognitive decline (Wang & Carr, 2004), rather than age per se, may explain the greater risk of death or injury (Dickerson et al., 2007) and the risk of death and injury would be higher if it were not for older adults self-regulating their driving behaviour when health declines are experienced.

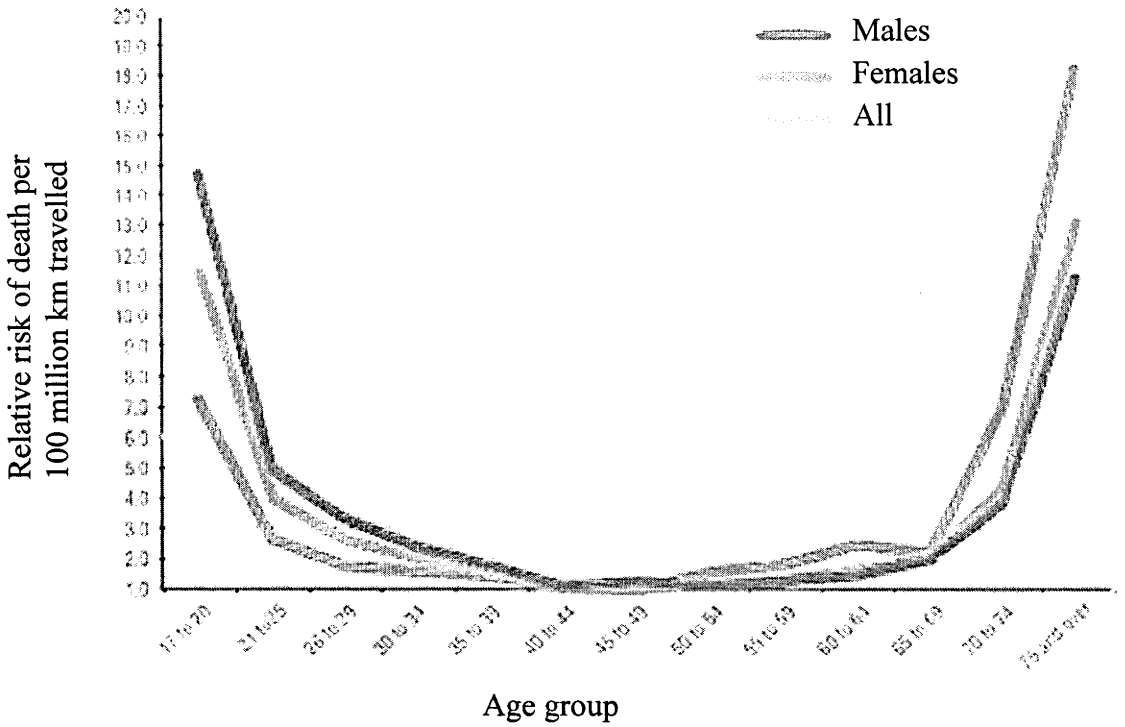

Figure 1. Relative risk of death per million kilometres travelled. The relative risk is calculated by comparing each group to that of the group with the least number of deaths. Source: Australian Transport Safety Bureau (2010).

1.3.1.2 Adjustment of driving behaviour

During the pre-decision phase of driving, before the decision to give up driving is made and often before cessation is a consideration, many older drivers self-regulate their driving behaviour to avoid challenging driving situations, such as peak hour traffic or night-time driving and driving on unfamiliar roads (Ball et al., 1998; M. J. Bauer, Adler, et al., 2003; Charlton et al., 2006; Eisenhandler, 1990; Yassuda, Wilson, & Mering, 1997). Self-regulation of driving patterns is often seen as a positive change, in that it enables older drivers to keep driving while maintaining safety, and is the result of changes in health or lifestyle. However, self-regulation more likely involves an awareness of declining physical and/or cognitive functioning adversely affecting driving

abilities which leads to other negative life changes and often poorer well-being (Donordio, Mohyde, Joseph, & D'Ambrosio, 2008; Fonda et al., 2001).

Further adjustments to driving behaviour may be made when physical and cognitive changes are experienced (Eisenhandler, 1990; Ragland, Satariano, & MacLeod, 2004; Unsworth, Wells, Browning, Thomas, & Kendig, 2008). Commonly, physical and cognitive changes include vision deterioration leading to increased difficulty seeing in poor visibility, difficulty attending to multiple stimuli, and cognitive impairment (Anstey, Wood, & Lord, 2005). Older drivers aware of their impairments tend to self-regulate their driving behaviour, when possible, to enhance safety and continue driving, and those with worsened visual impairment, or multiple impairments, tend to restrict their driving to the greatest extent (Ball et al., 1998). These drivers generally take shorter trips, drive more slowly, more cautiously and more defensively, avoid driving alone, and take more breaks when having to drive longer distances. Older drivers with limited awareness of their impairments may try to delay giving up driving or self-regulate their driving activity to put off driving cessation altogether (Dickerson et al., 2007).

1.3.2 Moving Toward Driving Cessation

> That which precipitates driving cessation effects how drivers interpret the impact of giving up driving and in turn their psychological well-being.
>
> (cf. M. M. Baltes & Skinner, 1983)

1.3.2.1 Further adjustment of driving behaviour

The transition from driver to ex-driver, during the decision phase of driving, may occur gradually over a prolonged period of time, which is characterised by successive small changes, or suddenly over a very short period of time (Adler &

Kuskowski, 2003; Dickerson et al., 2007; Legh-Smith et al., 1986). Successive changes, usually restrictions to driving such as those described above, may be self-imposed or imposed by others. For example, the driver licensing authority may place restrictions on a driver allowing them to drive only to certain places, certain times of day, and/or only in favourable weather conditions (Dickerson et al., 2007). Restrictions on usual driving patterns, even those that are self-imposed, negatively affect psychological health (Fonda et al., 2001), and the effect appears strongest when the change first occurs then attenuates over time, suggesting individuals adapt to the restrictions.

1.3.2.2 The decision to cease driving

It seems the majority of older Australians make the decision to stop driving on their own (around 66%), some report giving up on the advice of a doctor or giving up after their children or partner suggested they do so (13% and 15%, respectively); and a few give up as a result of being reported to the licencing authority (6%) (RACV, 2009). This suggests there are three distinct types of driving cessation decision makers: proactives, reluctant accepters, and resisters. Proactives are those who are able to take control of the process, make the decision on their own, and then inform others. Reluctant accepters have less control over circumstances and they reluctantly make the decision. Resisters continue to drive as before until forced to stop (for examples see Adler & Rottunda, 2006). When other people have control over an outcome, sense of autonomy is diminished and poorer well-being is experienced (Deci, Connell, & Ryan, 1989; Kunzmann, Little, & Smith, 2002; Ryan, 2009). It may be that pre-existing low levels of well-being, which lead to a more negative interpretation of post-driving cessation circumstances (A. T. Beck et al., 1979; J. S. Beck, 1995), partly explains poorer well-being associated with no longer driving.

1.3.2.3 Factors that influence the decision to cease driving

When driving cessation occurs suddenly and with little warning the reasons for driving cessation tend to be clear (Legh-Smith et al., 1986). However, when driving cessation occurs slowly over a lengthy period of time, such as when self-imposed driving restrictions reach the point where driving ceases altogether, the reasons underpinning the decision are usually many and varied (Dellinger et al., 2001; Persson, 1993). Commonly cited reasons for driving cessation are associated with illness, ageing, declining physical functioning, or recent experience of an accident (Dellinger et al., 2001; Dickerson et al., 2007; L.P. Kostyniuk & Shope, 1998; RACV, 2009). Declining health is the main reason given for stopping driving (Dickerson et al., 2007), however the mix of health issues, number, and significance given to each condition, plus additional influencing factors, is unique to each individual.

Key factors influencing driving cessation include having a realistic perspective of declining driving skills and prompting from family, medical professionals, or the driver licensing authority. Those with a realistic perspective of declining driving skills are more likely to stop driving of their own accord (Adler & Rottunda, 2006). Family and friends may directly and strongly influence the decision whether or not to give up driving when the issue of giving up driving is raised, especially if the older adult trusts the family member or friend and believes they are willing and able to provide support (J. E. Johnson, 1998). However, the issue of driving cessation is often not raised by family and friends (Persson, 1993). Other factors influencing the decision to give up driving include the availability of alternative transport, driving costs, frightening driving experiences, slowed reflexes, general fatigue, risk to others, and gender (M. J. Bauer, Rottunda, et al., 2003; Dellinger et al., 2001; Dickerson et al., 2007; Hakamies-Blomqvist & Wahlström, 1998; Persson, 1993).

1.3.2.4 Predictors of driving cessation

Only some ex-driver characteristics have been found to reliably predict driving cessation. Ex-drivers are more likely to be female, older, have less education, live alone, have poorer health, and are more likely to be cognitively, and visually impaired than drivers (Edwards et al., 2008; Horowitz, Boerner, & Reinhardt, 2002; Marottoli et al., 1997; Mezuk & Rebok, 2008). From this list age, being female and living alone are predictors of driving cessation. Cognitive impairment in some domains, rather than general cognitive impairment; poorer physical functioning; poor or fair self-rated health, rather than poorer health per se; and number of days or miles driven per week, also predict driving cessation (Ackerman, Edwards, Ross, Ball, & Lunsman, 2008; Dellinger et al., 2001; Edwards et al., 2008; Foley et al., 2002; Hakamies-Blomqvist & Wahlström, 1998; Ross et al., 2009; Sims, Ahmed, Sawyer, & Allman, 2007; Unsworth et al., 2008).

Women are approximately three times more likely to give up driving than men (Unsworth et al., 2008). This gender difference probably exists because older male drivers are less likely to think about giving up driving, consider alternative transport, or rely on friends or family for assistance. Older male drivers are also more likely to consider driving a necessity and resist giving up their licence than older female drivers (L.P. Kostyniuk & Shope, 1998). Given the reluctance of older male drivers to consider giving up driving it is not surprising that more female drivers stop driving than men, and given the differing attitudes towards driving it is not surprising that more women than men tend to voluntarily give up driving when they are younger and in better health (Gallo, Rebok, & Lesikar, 1999; Hakamies-Blomqvist & Wahlström, 1998). Self-rated health (SRH) is an important predictor of driving cessation and is a better predictor of driving cessation than objective experiences of ill-health and sensory impairment (Anstey, Windsor, & Luszcz, 2006). Illnesses, those that impair driving ability and

those that do not impair driving, predict driving cessation (Siren, Hakamies-Blomqvist, & Linderman, 2004).

1.4 Driving Cessation

Driving is ubiquitous (E. E. Freeman et al., 2006), taken for granted, considered a normal part of everyday life, and is increasingly relied upon for mobility (Whitehead et al., 2006). This suggests giving up driving would have a myriad of impacts on individuals and their lifestyle. A number of studies have explored the post-cessation phase of driving finding this is a time when transportation problems, loss of independence, regret, loneliness, and poorer well-being may be experienced. First, studies exploring subjective experiences, then second, studies exploring driving cessation and depressive symptoms are discussed and evaluated below.

1.4.1 Experiences of Driving Cessation

> "It [spontaneity] goes by the wayside. You got to think ahead.
> That's OK, we can do that."
> (Participant MR; M. J. Bauer, Rottunda, et al., 2003)

As the body of driving cessation research has grown a picture has emerged of the post-cessation phase of driving as a period of transition involving multiple and often overwhelming losses, creating a need for adjustment. Ex-drivers consistently report loss of independence and autonomy, increased sense of being disabled, and feelings of regret (Adler & Rottunda, 2006; M. J. Bauer, Rottunda, et al., 2003; Bedard & Kafka, 2008; Bonnel, 1999a; Carp, 1971; Cutler, 1972; Dellinger et al., 2001; J.A. Kelley-Moore, J.G. Schumacher, E. Kahana, & B. Kahana, 2006; Liddle et al., 2008; Shope, 2003; Whitehead et al., 2006). Losses, specific to no longer driving, include giving up trips and activities, loss of independence, and the ability to act spontaneously. These findings are now discussed in more detail.

One of the earliest driving cessation studies reveals individuals' experiences of losing their drivers' licence include: transportation problems, some (10%) reported difficulty getting to doctor appointments, the shops, and getting to see friends, loss of independence, no longer being able to help others, and an increased sense of being old (Carp, 1971). While examining the influence of friends and family in the decision-phase of driving, Johnson (1998, 1999) found the post-cessation phase of driving is characterised by increased loneliness and isolation (1998), loss of independence, and sometimes regret (1999). Increased loneliness and isolation was reflected in the participant quotes, "It means I'm alone and very lonely" (1998, p. 211) and "Boy it's tough, There's no way to get anywhere to see anybody" (1999, p. 16). Regret and loneliness were reported when family/friends had encouraged the older adult to give up driving with promises to help with transportation needs but then provided minimal help (J. E. Johnson, 1999). When friends and family provide transportation, this often leads to the ex-driver feeling overly reliant on them and a sense of being a burden (1999). While loss of independence is clearly reported, for example: "some things in life just aren't easy to accept - losing your independence is one of 'em"; it is unclear whether this is related to driving cessation. Bonnel (1999a) identified many of the losses and challenges faced by ex-drivers, and various ways they dealt with this. The findings revealed several physical and emotional losses, such as social activities with family or friends, bargain shopping, and volunteer work. Strategies for managing without a car involved drawing on informal support from friends, family members and neighbours and utilising formal transportation options though community and government programs.

One of the most recent driving cessation studies also found that ex-drivers experience multiple losses during the post-cessation phase of driving and that ways of coming to terms with these losses are often developed (Liddle et al., 2008). Attempts

are frequently made to find new ways to maintain pre-cessation lifestyles and access to the community. From interview data obtained from older ex-drivers, their family members, and health professionals, Liddle and colleagues (2008) categorised post-cessation challenges as "coming to terms" and "finding new ways" (p. 384) echoing Bonnel's (1999a) categories "coping with loss" and "finding other ways" (p. 12), which were derived from secondary data analysis of interviews with older drivers and ex-drivers. Reported losses include independence, freedom, pleasure, and skills; suggested interventions include support and education regarding lifestyle changes and help with emotional adjustment (Liddle et al., 2008). Four points distinguish Liddle and colleagues study from previous qualitative post-driving cessation studies: the first and second of these points represent unique findings, the third is the authors' conceptualisation of owning the driving-cessation decision, and the fourth is methodological rigor. These warrant further attention and are discussed below.

First, unique to Liddle and colleagues (2008) study is the identification of specific positive feelings and benefits related to no longer driving, which include reduced levels of stress, financial advantages, and social gains as a result of giving up driving. Carp (1971) had also stated that some ex-drivers report positive feelings about giving up the car. However, no details, reasons or explanations were given for ex-driver's positive feelings. It is unclear whether this was because they could not be identified, or because the reasons participants would have endorsed were not included in the study measure. Liddle and colleagues did not comprehensively explore the positive feelings and benefits related to no longer driving either. A balanced view of driving cessation can only be achieved through consideration of the positive experiences of no longer driving, not only what these might be but also how they come about and why it is they are experienced positively.

Second, the authors noticed all participants initially stated that giving up driving had been their decision, however details that emerged later in the interview of seven of the participants indicated that the decision to stop driving had not originally been within their control (Liddle et al., 2008). The authors postulate that these ex-drivers underwent a process of "*owning the decision*" [author's italics] (p. 383), whereby over time, during the decision and post-cessation phases of driving, they altered their perception of how involved they were in the cessation decision. This suggests that regardless of the multiple factors affecting the decision to stop driving (e.g., the reasons for and influence of others) older adults may be able to achieve a sense of involvement in the process leading to a more positive experience. Furthermore, it raises questions as to which driving cessation precipitating factors are open to reinterpretation, and how such reinterpretation could ultimately affect psychological well-being (cf. M. M. Baltes & Skinner, 1983).

Owning the driving cessation decision is conceptualised 'as a process of altering one's perception, which serves to enhance feelings of control' (Liddle et al., 2008). Altered perception in response to low-control circumstances is a fit-focused mode of coping (Skinner, Edge, Altman, & Sherwood, 2003). When considered beyond the confines of theories of control, fit-focused coping in response to limited resources and shrinking horizons is best conceptualised as an Accommodative process (Brandtstädter & Greve, 1994; Brandtstädter & Renner, 1990a; Brandtstädter & Rothermund, 1994; Skinner et al., 2003). The salience of this observation to future research is twofold: it is argued that the circumstances under which the decision to give up driving is made will affect post-cessation experiences (cf. M. M. Baltes & Skinner, 1983), and one's perception of the circumstances under which the decision is made can be altered, leading to enhanced well-being. To date, no studies have evaluated the relationship between reasons for driving cessation and post-cessation outcomes; most likely because

there are many and varied factors influencing the driving cessation decision, and such complexity presents significant challenges for research. Owning the decision making is likely a central aspect of the giving up of driving. Conceptualising the cessation decision in terms of ownership, that is, perceived level of involvement in decision making (Liddle et al., 2008) may provide a fruitful area of study. Perceived level of involvement in decision making is supportive of feelings of control (Liddle et al., 2008) and sense of autonomy (Ryan & Deci, 2006). Moreover sense of autonomy (discussed in Chapter 2) is associated with better psychological health (Deci & Ryan, 2000a, 2000b). Given perceptions of the circumstances under which driving cessation occurred may change over time (Liddle et al., 2008), and the strong empirical evidence linking tendencies towards using accommodative processes with better psychological outcomes (Deci & Ryan, 2000a, 2000b; Ryan, 2009), research exploring the impacts of driving cessation on psychological health taking perceived involvement in the decision to stop driving into consideration may produce interesting and important findings. The third study in the current research project (Chapter 5) explores perceived involvement in the decision to stop driving.

The fourth point that distinguishes Liddle and colleagues (2008) study from previous qualitative post-driving cessation studies regards methodology. Multiple forms of triangulation were used strengthening the rigor and robustness of the research. Triangulation, a research validation strategy, involves performing and comparing two or more research methods, data sources, researchers' observations, or theories to maximise the validity of the research (Denzin, 2009). Liddle and colleagues study is part of a larger project using qualitative and quantitative methods (Gustafsson et al., 2011; Liddle, Gustafsson, Bartlett, & McKenna, 2012; Liddle et al., 2007; Liddle, McKenna, & Broom, 2004; Liddle et al., 2009) and data were obtained from a number of different sources, for example, ex-drivers, family members of the ex-drivers, and health

professionals with experience in the field. Data collection methods and analysis are described comprehensively, demonstrating close adherence to recommended qualitative research method guidelines described by Patton (2002). There is also evidence a rigorous and methodologically sound approach was applied to each stage of the study, minimising bias and enhancing the study findings dependability. Fit between what participants' are quoted as having said and the researchers' representation of what was said is good and a range of different explanations of the data are considered, providing a sophisticated understanding of the phenomena and strengthening the authenticity of the qualitative analysis (cf. Tobin & Begley, 2004). Participants' experiences of no longer driving are skilfully discussed in terms of change in transport behaviour and the broader issue of life transitions. A clinical framework on which to base interventions is provided based on a number of theoretical approaches in conjunction with the active, practical, and cognitive coping strategies employed by participants. Thus, Liddle and colleagues reveal the experiences of older adults who no longer drive and the meaning and purpose of the older adults' responses to the challenges that arise as a result of driving cessation. There is coherence between the theories (e.g., driving cessation as a life transition involving role loss), the participants' views, and the authors proposed research driven recommendations for occupational therapists involved with helping older retired drivers address the challenges of driving cessation.

Previous driving cessation research has not at times adopted such rigorous methodologies or reporting of methodologies and results. Two representative examples are given here. Critical evaluation of Carp's (1971) study is severely hampered by the lack of reporting on data collection method, instruments, descriptive statistics, and statistical analysis. Furthermore, the reported findings and the number of ex-drivers these findings refer to are ambiguous. Bonnel (1999a) used content analysis to describe and categorise data from loosely structured interview questions. This study provided

some interesting quotes from participants; however, the findings should be approached with caution. The study does not meet criteria for credibility or dependability: two criteria that demonstrate the rigour and robustness of qualitative research. Credibility, the fit between what participants' are quoted as saying and the researchers' representation of what is said (Tobin & Begley, 2004) is tenuous at times and conclusions drawn from participants' quotes are weak. For example, Bonnel (1999a) concludes driving cessation: is truly a major life issue for women, which has an impact on almost all aspects of life, and leads to loss of independence. However, the supporting quotes indicate it is older age that is the major issue, with driving cessation representing an age-related loss. Dependability, which in qualitative research is akin to the reliability of quantitative research (Tobin & Begley, 2004), could not be checked due to a paucity of information: neither data collection methods nor analysis are clearly reported. Furthermore, quotes were not attributed to individual participants and the reader is left to question how applicable the findings are to the sample as a whole.

Despite the strengths outlined above, Liddle and colleagues (2008) study was not without some limitations. Further research is needed to explore in greater depth the nature and meaning of the losses experienced by older adults when they stop driving. Positive feelings and benefits of no longer driving need to be identified, described, and explored in depth. A diverse sample of older adults is desirable to strengthen the robustness of findings and maximise the validity of driving cessation research. And finally, further research from other disciplines, such as psychology, is needed to broaden the scope of investigation and interventions to promote psychological well-being and treat the declines in psychological health identified in the quantitative driving cessation research. This research project addresses some of the limitations discussed above by exploring the nature and meaning of the negative and positive subjective

experiences of driving cessation in depth, while focusing on psychological needs, psychological coping strategies, and psychological well-being.

In summary, while the overall picture of the post-driving cessation period as a time of losses, negative emotions, and finding ways of coping appears compelling, many of the studies discussed above have represented specific populations (women) and lack sophistication and rigour. In the main, the experience of no longer driving has been described without coming to a comprehensive understanding of the phenomenon of being an ex-driver. Liddle and colleagues (2008) study is the exception, but there is still a need to explore whether driving cessation is associated with any positive experiences, and gain a deeper understanding of both these and the well documented negative experiences. Finally, given the relationship between driving cessation and increased depressive symptoms (discussed in section 1.4.2, below), a research project from a psychological discipline is required. Such a research project should use sound qualitative methods to explore the phenomenon and generate hypotheses from the data. These hypotheses should then be tested using a rigorous quantitative method, with the aim of providing a fuller understanding of the experiences of older adults who stop driving and their psychological well-being, and recommending appropriate psychological interventions: these are the broad aims of this PhD research project.

1.4.2 Driving Cessation and Well-being

> "[It's] just like the shutters coming down over your life, your freedom's gone ... the horizons that you loved ... they're gone forever."
>
> (Retired Driver 9; Liddle et al., 2008, p. 384)

On the whole, driving cessation studies suggest giving up driving is related to poorer well-being (Fonda et al., 2001; Marottoli et al., 1997; Ragland et al., 2005;

Windsor et al., 2007) and that the effects of driving cessation on well-being may gradually diminish over time (Edwards, Perkins, et al., 2009; Fonda et al., 2001).

1.4.2.1 Depressive symptoms

More recent studies, one clinical population based and five general population based, have examined the relationship between driving status and depressive symptoms. The first, the clinical population based study (n = 144), found a group of stroke survivors who did not resume driving post-stroke had a higher frequency of depression compared with those who continued to drive after their stroke (Legh-Smith et al., 1986). However, the results should be treated with caution. The use of the chi-square test for independence in the analysis fails to take into consideration participant characteristics that affect driving cessation and depression. Therefore, the possibility that sociodemographic and health related characteristics account for higher frequency of depression among ex-drivers cannot be ruled out. In addition, the sample is not representative of the wider population who cease driving; the sample was predominantly male (90%), ceased driving at a younger age, and experienced poorer health compared with the majority of older adults who stop driving (compare Foley et al., 2002; with Legh-Smith et al., 1986). Research with a representative sample of older adults, which takes into consideration confounding factors, is required to see whether there is a link between giving up driving and depressive symptoms in the general population.

The findings of four of the five population-based studies (Fonda et al., 2001; Marottoli et al., 1997; Ragland et al., 2005; Windsor et al., 2007) are consistent with those of the clinical population study. Marottoli and colleagues (1997) found driving cessation during the six-year interval of the study was associated with increased depressive symptoms, after the contributions of sociodemographic and health-related

factors to depressive symptoms were taken into consideration. A random effects method was used to analyse the data, thus obtaining a more accurate analysis of change in scores over time and controlling for the likely effects of changes in health status on driving status, depression, and the relationship between the two. This study demonstrated good external and internal validity: data were drawn from a large sample representative of the area in the Unites States of America (USA) in which the study was conducted and data analysis takes into account variables thought to affect both driving cessation and depression, and change over time.

Fonda and colleagues (2001) found among older Americans (n = 5,239) those who stopped driving between 1993 and 1995 were at greater risk of experiencing increased depressive symptoms than those who still drove three years later and that having access to transportation through a spouse did not offset the effects of driving cessation on depressive symptoms. However the latter result was inconclusive and further research is needed here. Conclusions drawn from these findings may need to be treated with some caution because of participant attrition from the study at each wave of data collection and missing depressive symptoms data were not random. To minimise attrition related systematic error the characteristics of those who participated in the study at all three waves were compared with those who dropped out at each wave. Those participants who died between Wave 1 and 2, required proxies to participate at Wave 2, or withdrew from the study were omitted from the data analysis. In addition, participant information regarding death, needing a proxy, and study withdrawal at Wave 3 were used to model these outcomes as competing risks to increased depression at Wave 3 to produce a conservative estimate of the driving cessation-depression relationship.

Raglan and colleagues (2005) found, after controlling for sociodemographic and health-related factors, older adults who give up driving report more depression three

years later than those who continue to drive. The authors conclude giving up driving is associated with worsened depression. Limitations of the study include a small sample (42 ex-drivers), who were not representative of older adults living in the area in which the study was conducted. Interestingly, neither sociodemographic nor health-related factors decreased the association between driving cessation and depression, which is inconsistent with previous research findings (cf. Fonda et al., 2001; Marottoli et al., 1997). And, finally, the authors conclude that the relationship between driving cessation and depression is not explained by some third variable affecting both variables. The authors do not consider a myriad of individual and environmental factors that may determine how negatively driving cessation is experienced and its impact on depression: for example, feeling pressured to stop driving may diminish sense of autonomy (discussed in sections 1.3, above) leading to increased depression (discussed in Chapter 2) rather than driving cessation per se.

Finally, Windsor and colleagues (2007), the only study among an Australian population (n = 700), also found a relationship between driving cessation and increased depressive symptoms. This prospective, community-based cohort study explored the role of control beliefs in mediating change in the driving status-depressive symptoms relationship. Older adult drivers who stopped driving during the two year period of the study (n = 53) tended to be older, in poorer health, report lower perceived control and worse depressive symptoms at baseline compared with those who were drivers throughout the study. While there was no change in depressive symptoms for those who continued to drive, those who stopped driving during the study period reported an increase in depressive symptoms between baseline and follow-up. Multilevel general linear modelling, which was used to assess whether the increase in depressive symptoms could be explained in part by sociodemographic and health factors and control beliefs, found living alone, poorer self-rated health, and lower perceived control

predicted more/worsened depressive symptoms. Consistent with previous studies, Windsor and colleagues' findings support the idea that giving up driving is associated with poorer well-being. The role of perceived control is unclear, perceived control may be one of the mechanisms underlying the driving cessation-depressive symptoms relationship. Similar to Ragland and colleagues (2005), the study sample of ex-drivers was small. Failure in Windsor and colleagues' study to find statistically significant change in ex-drivers' perceived control between baseline and follow-up may be due to the low number of ex-drivers. The authors suggest a causal link: driving cessation threatens perceived control which in turn reduces well-being. However, more research with larger samples in needed in this area.

The findings of one of the five population-based studies (n= 602) failed to find a difference between drivers' and ex-drivers' depressive symptoms. In this study the ex-drivers had ceased driving more than five years prior to the assessment of depressive symptoms (Edwards, Perkins, et al., 2009). In all other respects the participant sample was similar in characteristics to those of the other population based studies. Equivalent or the same tools were administered to measure the independent variables and research procedures were comparable to the procedures of those studies where worsening depression had been found. Edwards and colleagues, who used the 12-item form of the CES-D Scale (rather than the 20-item CES-D Scale), suggest the lower sensitivity of the short form of the scale may account for the non-significant finding. However, the 12-item CES-D has been shown to be a sensitive and reliable measure of depression (Turvey, Wallace, & Herzog, 1999; Van de Velde, Levecque, & Bracke, 2009) and the shorter 8-item form of the CES-D Scale is sensitive enough to detect change in depressive symptoms associated with driving cessation (Fonda et al., 2001). Rather, the findings suggest the longer time between cessation and evaluation of depressive symptoms might explain the non-significant driving status-depressive symptoms

relationship. Over a longer period of time driving cessation associated increases in depressive symptoms may resolve as participants adjusted to the challenges posed by driving cessation.

Each of these studies provides a valuable insight into the relationship between driving cessation and well-being. Longitudinal in nature and examining with-in person changes in driving status and well-being, these studies go beyond cross-sectional comparisons of drivers and ex-drivers. While lacking information on the exact timing of cessation and changes in depressive symptoms, the evidence strongly suggests giving up driving may lead to increased/worsened depressive symptoms. There are, however, a number of limitations associated with the current state of research on driving status and depressive symptoms. These issues include the age of the data, additional unexplored ecological factors and driving cessation precipitating factors which may affect the driving cessation-depression relationship, and a lack of clinical parameters to inform what degree of change in depression score is clinically meaningful.

It is worth understanding the practical significance of post-driving cessation levels of depressive symptoms and increases in depressive symptoms reported in the research. These findings may be used to influence driving cessation decisions and the allocation of finite public and private resources, as well as determine the value of pursuing research in this area. Driving cessation research assumes increased depressive symptoms, as measured by the Wakefield Self-Assessment Depression Inventory and the CES-D Scale, equate to increased psychological distress and that post-cessation levels of depressive symptoms warrant intervention. On the basis of these assumptions, researchers argue that medical practitioners and policy makers should take potential increases in psychological distress into consideration when making recommendations to older drivers to give up driving (Marottoli et al., 1997). When there are no physical or cognitive impairment reasons for driving cessation, strategies should be implemented to

prevent driving cessation (Fonda et al., 2001), and programs to help ex-drivers and their families make the transition between driving and not driving should be implemented (Fonda et al., 2001; Ragland et al., 2005), so that increases in psychological distress may be avoided. Specific recommendations include: the provision of adequate transport alternatives (Fung & Carstensen, 2004; Marottoli et al., 1997), financial assistance towards taxis (Legh-Smith et al., 1986), and greater access to mental health therapies (Fonda et al., 2001); perhaps those that focus on maintaining personal agency (Windsor et al., 2007). Post-driving cessation interventions are discussed below, in section 1.4.4.

1.4.2.2 Life satisfaction

One of the earliest studies indicating that giving up driving is related to poorer well-being found a relationship between access to transportation and life satisfaction: older adults without access to transportation reported lower life satisfaction (Cutler, 1972). A much later study found a weak relationship between driving status and life satisfaction, where current drivers reported higher life satisfaction than ex-drivers. No significant difference was found between ex-drivers' and never drivers' life satisfaction scores (Liddle et al., 2012). Driving influences one's sense of identity, not being capable of or allowed to drive is associated with stigma (Eisenhandler, 1990), and stigma is associated with lower life satisfaction (Link & Phelan, 2006).

1.4.3 Other Impacts

While not the focus of this research, it is important to note that driving cessation has been associated with a number of negative outcomes in addition to subjective negative experiences and higher depressive symptoms. These include immobility and social isolation (Burkhardt, 1999; Kim & Richardson, 2006; Liddle et al., 2007; Marottoli et al., 2000; Mezuk & Rebok, 2008), and poorer health and mortality

(Edwards, Lunsman, Perkins, Rebok, & Roth, 2009; Edwards, Perkins, et al., 2009; Fonda et al., 2001; Siren et al., 2004). Any one or all of these factors are also likely to be associated with increased depressive symptoms (Djernes, 2006).

1.4.3.1 Mobility and social integration

In the majority of cases, when older drivers reduce or cease driving, mobility (variously defined as number of trips taken and/or distance travelled away from home) is observed to decline. Older adults who no longer drive take fewer trips or avoid taking a trip under certain circumstances; trips taken usually involve travelling shorter distances and more often than not are limited to the schedules and convenience of others, resulting in less time spent away from home and in social leisure activities (Burkhardt, 1999; Kim & Richardson, 2006; Liddle et al., 2007). This indicates that when driving ceases and the availability of alternative transport is limited it becomes more difficult to engage in activities far from one's home.

Considerable variability exists in out-of-home activity levels between adults, and over time activity levels decline regardless of driving status. However, driving cessation continues to be associated with reduced out-of-home activity levels when sociodemographic and health-related characteristics are taken into consideration (Marottoli et al., 2000). The majority of activities in Marottoli and colleagues' study involve social integration, such as playing cards, games, or bingo, and participation in community and/or volunteer activities, indicating that reductions in out-of-home activity lessens the opportunity for social integration. This in turn negatively affects the size of an individual's network of friends (Marottoli et al., 2000; Mezuk & Rebok, 2008). The relationship between out-of-home activity levels, social integration and driving status is further complicated by the fact that each variable is also associated with

health status, cognitive functioning and well-being (as discussed previously, and below, in this chapter).

1.4.3.2 Physical Health and mortality

The fact that physical health limitations may both precede and be exacerbated by driving cessation means that the association between driving cessation and health is not clear cut. Research indicates older adults who retire from driving experience more illnesses than those who continued to drive, experience greater declines in general health and self-rated health, and experience less stable general health (Edwards, Lunsman, et al., 2009; Siren et al., 2004). However, poorer physical health may be a predictor of giving up driving (Sims et al., 2007) rather than a consequence of driving cessation. A prospective study examining the contributions of cognitive and physical health to subsequent driving outcomes found ex-drivers are more likely than drivers to have died three years post-cessation (Edwards, Perkins, et al., 2009). After controlling for factors thought to affect mortality, such as physical health, sensory functioning, cognitive performance, psychological health, and demographic risk factors, older adults who had given up driving or had never driven were found to be almost five times more likely to die over a three year period than those who had driven in the previous twelve months. The authors posit increased social isolation and depression, decreased sense of control, reduced physical activity and access to healthcare may explain the link between driving status and mortality risk. This study may indicate driving cessation shortens older adults' lifespan.

1.4.4 Brief Summary

In summary, the association between driving cessation and poorer psychological health (during the months immediately following cessation at least) appears to be fairly

robust. Several recent studies report that driving cessation predicts more depressive symptoms, after potentially confounding factors such as health and physical functioning were taken into consideration, and that the risk of experiencing deteriorating depressive symptoms is greater for ex-drivers compared with drivers (Fonda et al., 2001; Marottoli et al., 1997; Ragland et al., 2005; Windsor et al., 2007). Moreover, easy access to private transportation through a spouse who drives does not appear to lessen the risk of increased depressive symptoms (Fonda et al., 2001). The driving cessation-depression relationship has been attributed to limited access to public and private transportation, distance from facilities, and reduced access to social interaction. Underlying psychological mechanism(s) linking driving cessation to poorer well-being are not well understood. Giving up driving likely represents a significant threat to perceived control, which in turn contributes to an increase in depressive symptoms (Windsor et al., 2007). Thus, the research provides an evidence-base for recommendations that those involved in the driving cessation decision should consider the potential impact of cessation on well-being and the availability of appropriate post-cessation psychological interventions.

1.4.5 Post-Cessation Interventions

Despite a substantial body of evidence indicating that negative psychological experiences follow driving cessation (Adler & Rottunda, 2006; M. J. Bauer, Rottunda, et al., 2003; Bonnel, 1999a; Carp, 1971; Davey, 2004; Dellinger et al., 2001; Edwards, Lunsman, et al., 2009; Edwards, Perkins, et al., 2009; Fonda et al., 2001; Legh-Smith et al., 1986; Liddle et al., 2009; Marottoli et al., 1997, 2000; Ragland et al., 2005; Shope, 2003; Windsor et al., 2007), there are few formal supports for retired drivers, and there is a paucity of research to identify interventions that address the psychological distress associated with no longer driving (Windsor & Anstey, 2006). Driving cessation

interventions may be applied at the population or community level, such as increasing access to, or improving, public transport services to meet the transportation needs of older ex-drivers (Marottoli et al., 1997). Interventions may be targeted at the group level, such as support group programs (Gustafsson et al., 2012), or at the individual level, such as counselling, recommended by Council On The Ageing (COTA) in the ACT Older Drivers' Handbook (ACT Road Transport Authority, 2012).

Current population and community level interventions focus predominantly on the provision of cost-effective and accessible transport, management of urban development reducing the need to travel (ACT Government, 2012), promoting safer driving and driving longevity, and planning for driving cessation (Marottoli, 2009). Automobile organisations, for example, offer older driver safety education programs, such as the 'Years Ahead Driver program', geared towards assisting older adults to drive safely for longer (NRMA, 2010). Handbooks and pamphlets are readily available with information for older adults thinking about giving up driving (ACT Road Transport Authority, 2012) and for the concerned families and friends of older drivers (LePore, 2010). However, the utility of driving cessation planning resources seems limited given the small number of drivers who plan for driving cessation, despite the availability of information: 64% of older adult drivers in the ACT have thought about giving up driving, of these, only 17% have planned for the event (Charlton et al., 2006).

The University of Queensland Driver Retirement Initiative (UQDRIVE) is a research-based, client centred group intervention program developed to help older adults manage driving cessation through education and support (Liddle et al., 2007). Program content is based on the community mobility and lifestyle issues of older adults planning to stop driving, and those who had already stopped driving (Liddle et al., 2004). Research on which the intervention is based identified a weak relationship between lower life satisfaction and two losses associated with driving cessation: (1) less

availability of transportation resulting in less time being spent on social leisure activities, more time being spent on solitary leisure activities, and less time away from home; and (2), lower participation in roles with inherent value, such as volunteering and family member roles (Liddle et al., 2012; Liddle et al., 2007). The intervention sought to promote community engagement and mobility, and prevent isolation and depression among older adults giving up driving (Liddle et al., 2013). The focus was on assisting older adults to retire from driving by working through practical issues, and problem solving related to the specific goals of group participants. The aims were to raise pre-decision phase driver awareness of later life driving issues, and support information sharing and facilitation of adjustment during decision and post-cessation phases of driving (Liddle et al., 2007). Some attention was given to cognitive and behavioural coping strategies for dealing with depression, and information regarding local depression-support services (Gustafsson et al., 2011; Liddle et al., 2007), but the orientation was one aligned to occupational therapy.

Participant evaluation of the intervention was positive: they reported increased knowledge and awareness of alternative means of transport, which helped decision-phase participants re-evaluate and better plan for life post-cessation and reduce their sense of dread regarding giving up driving (Gustafsson et al., 2011). Beyond the social aspects of the UQDRIVE program, it is unclear whether there were any psychological benefits for those older adults who had already stopped driving. Researcher evaluation was based primarily on mobility with modes of transport used, satisfaction with transport, and self-efficacy with community mobility as secondary considerations. Initial post-intervention mobility gains were reported but they were not maintained at follow-up, indicating the effects of the program were positive but short lived. Higher levels of satisfaction with transport and participant self-efficacy levels, compared with the waitlist control group, were maintained (Liddle et al., 2013). Given the

occupational therapy focus of Liddle and colleagues' intervention and the link between driving cessation and poorer well-being, there is a need for a psychological post-cessation intervention that addresses depressive symptoms.

No group clinical interventions could be found by this researcher that target the emotional distress associated with driving cessation; though older adults experiencing post-cessation emotional distress may be accessing individual level interventions, such as counselling through their general practitioner or a psychologist. There is evidence to suggest older adults who receive counselling experience positive outcomes and benefit from a variety of psychological therapies, such as Cognitive Behavioural Therapy (CBT; A. T. Beck et al., 1979), which is the 'gold standard' treatment for depressive symptoms (Dobson, 1989; Koder, Brodaty, & Anstey, 1996), and Mindfulness-Based Cognitive Therapy (S. H. Ma & Teasdale, 2004). Post-cessation interventions based on the Cognitive Behavioural Therapy (CBT) model and on the ACT framework will be discussed in the final chapter of this thesis.

1.5 Summary

To summarise, the current body of driving cessation literature does not adequately explain why driving cessation is experienced negatively or why some older adults do not experience driving cessation negatively, or fully explore the potential for positive impacts of driving cessation. To contribute to a more complete picture of driving cessation, including positive experiences, pre- and post-driving cessation experiences are explored through qualitative and quantitative methods. Attention is given to the mechanism(s) that link driving cessation with poorer well-being and the protective factors affecting the relationship between driving cessation and well-being. To reduce gaps in the research identified in this literature review this thesis seeks to further explore the experiences of older adults who give up driving. And, seeks to

answer the following questions: (1) What are the subjective experiences of older adults who have given up driving?; and (2) Why is it that some older adults experience poorer well-being after driving cessation while others do not? These research questions are discussed in the context of a model of stress, coping and well-being in the next chapter. The following are also explored in subsequent chapters: the impact of driving cessation is on well-being; post-driving cessation satisfaction of psychological needs; the influence of feeling pressured to stop driving on post-cessation experiences, and post-cessation experiences on well-being; and, the effect of Accommodative and/or Assimilative processes on post-driving cessation well-being.

Chapter 2

CONCEPTUAL FRAMEWORK

CHAPTER 2: CONCEPTUAL FRAMEWORK

2.1 Abstract

This thesis project adopts the Stress-Coping paradigm framework to better understand poorer well-being in relation to the post-cessation phase of driving within a broad spatial and temporal context. Stress-Coping paradigm research consistently demonstrates life stress and distress are related, and identifies the psychosocial resources individuals utilise that neutralise the stressful nature of events or deal with the emotional responses (Binstock, 1993; Ensel & Lin, 1991; Lin & Ensel, 1989). In this chapter a model providing an integrated template of the many and varied stressors, buffering factors and outcomes associated with the post-cessation phase of driving, and the mechanisms through which they likely affect well-being, is discussed. This thesis posits driving cessation restricts attempts to meet three basic psychological needs, which in turn leads to poorer well-being; this is discussed here in the context of Self-Determination Theory (Deci & Ryan, 2000a, 2000b; Ryan, 2009). Further, it is proposed that adjusting to no longer driving accounts for levels of well-being higher than might be expected under a life circumstance that could be regarded as negative; this is discussed here in the context of the Assimilative and Accommodative Model of Coping (Brandtstädter & Renner, 1990a, 1992). Well-being is defined in terms of affective, cognitive, and psychological states (cf. Angner, 2010; Delle Fave, Brdar, Freire, Vella-Brodrick, & Wissing, 2011; Rogers, 1965; Ryan & Deci, 2000). This chapter closes with a summary description of the mixed-methods paradigm (Denzin, 2009; R. B. Johnson & Onwuegbuzie, 2004; R. B. Johnson, Onwuegbuzie, & Turner, 2007; Patton, 2002; Sieber, 1973): key terms are defined and the benefits of adopting a mixed methods approach to this research are examined.

CHAPTER 2: CONCEPTUAL FRAMEWORK

2.2 Introduction

Providing structure and boundaries to this thesis project are a number of compatible paradigms, theories and models. The Stress-Coping paradigm framework (cf. Binstock, 1993; Ensel & Lin, 1991; Lin & Ensel, 1989) sets up the context through which to integrate existing driving cessation research, coping research, and interventions aimed at dealing with poorer well-being, within a broad spatial and temporal context. Choi and colleagues model of the decision phase of driving (Choi et al., 2012) is adapted to provide a template of the many and varied stressors, protective factors and outcomes associated with the post-cessation phase of driving, and the mechanisms through which they likely affect well-being. Self-Determination Theory (Deci & Ryan, 2000a, 2000b; Ryan, 2009) identifies three basic psychological needs; when need satisfaction is limited or thwarted there are significant negative consequences, such as poorer well-being. This theory provides a coherent framework and tools for testing mechanisms that may underpin the relationship between driving cessation and well-being. Similarly, the Assimilative and Accommodative Model of Coping (Brandtstädter & Renner, 1990a, 1992) provides the framework and tools to explore protective influences on the relationship between driving status and well-being. Finally, the Mixed Methods Paradigm (Denzin, 2009; R. B. Johnson & Onwuegbuzie, 2004; R. B. Johnson et al., 2007; Patton, 2002; Sieber, 1973) provides the principles and practices in study design, sampling, data collection, and data analysis for the thesis project in its entirety. This chapter includes discussion and evaluation of the paradigms, theories, and models that provide a theoretical basis, and inform the methodology used in this research project.

CHAPTER 2: CONCEPTUAL FRAMEWORK

2.3 The Stress-Coping Paradigm

Stress-Coping paradigm research has consistently demonstrated a relationship between life stress and distress, and identified resources in the psychosocial environment that individuals may use to either neutralise the stressful nature of events or deal with the emotional responses (Binstock, 1993; Ensel & Lin, 1991; Lin & Ensel, 1989). Driving cessation research has consistently demonstrated a relationship between no longer driving and distress. Consequently, the Stress-Coping paradigm provides an appropriate model through which to explore questions concerned with the relationship between stressors (e.g., driving cessation), buffers (e.g., coping strategies) and outcomes (e.g., well-being) and how they interact within the broader social and temporal context (Binstock, 1993). The explanatory power of the Stress-Coping paradigm lies in the framework it provides to address four pertinent questions (Binstock, 1993). Table 1 displays the Stress-Coping paradigm questions and corresponding research questions in this project, which were derived by modifying each Stress-Coping paradigm question to the context of driving cessation. The research questions are discussed and incorporated into a stress-coping model (Figure 2, in section 2.3.1) in section 2.7, below.

Table 1

Stress-Coping Paradigm Questions and Corresponding Research Question

	Stress-Coping paradigm questions:	Research Question:
1	What are the types of stressors encountered by adults?	What are the experiences of older adults who give up driving?
2	What is the impact of these stressors on well-being?	What is the impact of driving cessation on well-being?
3	Through which mechanisms do stressors affect well-being?	Through which mechanisms (psychological needs) do driving cessation stressors affect well-being?
4	What are the buffers of stress?	Do Accommodative and/or Assimilative processes buffer the effects of driving cessation on well-being?

2.3.1 Stress-Coping Model

Stress-coping theories differ in terms of the specific mechanisms through which resources are thought to be organised to cope with adverse events. It is accepted that an environmental stressor in the absence of psychological, social or physiological resources will have a direct impact on life stress (Binstock, 1993; Ensel & Lin, 1991), that psychological, social or physiological resources may mediate the direct impact of an environmental stressor on life stress, and that a combination of environmental factors may have a buffering or moderating effect on life stress (Lin & Ensel, 1989). To better account for and understand the complexities of, the causes, and the consequences of the decision phase of driving cessation Choi, Adams, and Mezuk drew on the Stress-Coping paradigm and embedded much of the driving cessation research within it (Choi et al., 2012). A framework closely based on Choi and colleagues model is developed here to provide an integrated template of the many and varied stressors, buffering factors and outcomes believed to be associated with the post-cessation phase of driving, and the mechanisms through which they likely effect well-being. Figure 2 outlines the assumed interrelated stressors, buffers and outcomes associated with no longer driving. The assumption of the model is that driving cessation can be negative, neutral, or positive depending on, in part, an individual's ability to adapt and cope with stressors (Choi et al., 2012).

By teasing apart the causes, and the consequences of driving cessation experiences, the stress-coping model can help us to make sense of the various possible broad experiences of an older adult who has giving up driving. Biological and psychological stressors are organised into primary and secondary stressors. These stressors may contribute to driving cessation and may be negatively affected by driving cessation, and may be associated with poorer well-being. Primary stressors, which may be experienced regardless of driving status, include physiological impairment and

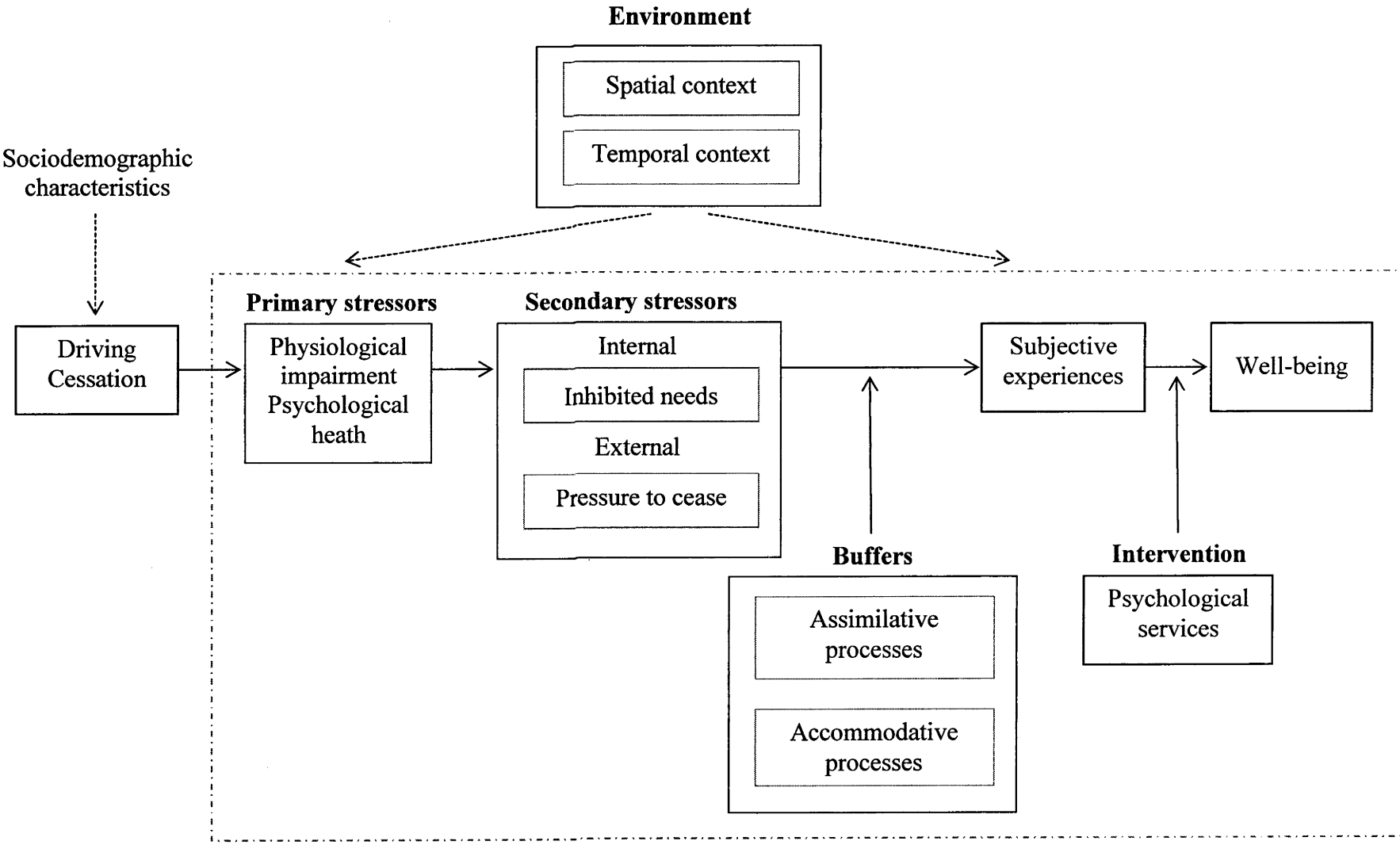

Figure 2. A stress-coping model applied to the post-cessation phase of driving.

psychological health[1]. For example, an older adult experiencing poor physical functioning or poor health is more likely to stop driving than an older adult without such physiological impairment (Ackerman et al., 2008; Dellinger et al., 2001; Edwards et al., 2008; Foley et al., 2002; Hakamies-Blomqvist & Wahlström, 1998; Ross et al., 2009; Sims et al., 2007; Unsworth et al., 2008). Those who give up driving are more likely to go on to experience poorer health (Edwards, Lunsman, et al., 2009; Edwards, Perkins, et al., 2009; Fonda et al., 2001; Siren et al., 2004) which may lead to increased depressive symptoms (Djernes, 2006). Secondary stressors are internal (within the individual) or external (outside the individual). Internal stressors are discussed at length in the context of Self-determination Theory (see Section 2.4). One example of an external stressor is perceived pressure to stop driving. Older adults who feel they were pressured to give up driving do not own the decision (Liddle et al., 2008), when experienced negatively this may contribute to the overall negative experience of no longer driving (Whitehead et al., 2006). Buffering factors may moderate the relationship between driving cessation and well-being: an ex-driver who adopts adaptive strategies is likely to experience a higher level of well-being than one who does not (Brandtstädter, 2009; Brandtstädter & Rothermund, 2002). Finally, sociodemographic characteristics, spatial context, and temporal context were included in the model because they may indirectly contribute to driving cessation and may have an effect on the outcome (Binstock, 1993), such as poorer well-being (Fonda et al., 2001; Marottoli et al., 1997).

2.4 Self-Determination Theory

"Needs specify innate psychological nutriments that are essential for ongoing psychological growth, integrity, and well-being"

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[1] Note: cognitive impairment, such as dementia, would be considered a primary stressor. Cognitive impairment was not included in the model because it was not assessed.

(Deci & Ryan, 2000b, p. 229)

Self-Determination Theory (SDT) takes a psychological approach to exploring and understanding human behaviour. The theory is concerned with how specific biological and social conditions can facilitate or diminish self-determination and the consequences of this on well-being (Ryan & Deci, 2006). When included in the stress-coping model, SDT can help us conceptualise driving cessation experiences in terms of secondary stressors. Secondary stressors in the model may be internal or external to the individual and they are associated with both the independent variable (in this case driving cessation) and well-being. SDT may be able to help us better understand the relationship between driving status and well-being and predict who, of the ex-drivers, are likely to experience poorer well-being (Ryan & Deci, 2008).

Self-determination is a core concept of SDT that refers to autonomy, meaning self-governance or regulation by the self. The theory explores multiple and interacting levels of behavioural regulation. On the one hand, individuals' are self-organising, they choose, moderate and influence action. On the other hand, social context and biological functioning may limit self-determination. Self-determination is susceptible to being controlled (Ryan & Deci, 2006). Controlling conditions (e.g., minimisation of meaningful choices) may disrupt autonomy and support controlled regulation and controlled regulation is associated with a variety of adverse outcomes, including poorer well-being (Ryan & Deci, 2008). The SDT framework focuses on how social and cultural factors support or undermine sense of autonomy and subsequent well-being and it is the interaction between the individual and the social context that is the basis for SDT's predictions regarding behaviour, experience, and well-being (Deci & Ryan, 2000a).

Research has applied the SDT framework to explore autonomous regulation, relatedness, and competency across a variety of social and cultural contexts (Chirkov,

Ryan, Kim, & Kaplan, 2003; Chirkov, Ryan, & Willness, 2005; Kasser & Ryan, 1999; Reis, Sheldon, Gable, Roscoe, & Ryan, 2000) demonstrating its applicability to diverse domains. When applied to clinical practice, the principles of SDT may guide therapeutic change (Vansteenkiste & Sheldon, 2006). SDT research informs clinicians of the general conditions that support/restrict motivation to change; for example, clients benefit most from therapeutic interventions when the clinician provides an autonomy-supportive experience.

By applying the SDT framework to driving cessation the question of 'why some ex-drivers suffer poorer well-being post-cessation while others do not' may be answered. SDT facilitates developing testable hypothesis about the varied effects of driving cessation on well-being. Observable individual characteristics may be unreliable predictors of well-being; an obvious example is rich people may be depressed and poor people happy (Ryan & Deci, 2008). Similarly then, drivers may be depressed and ex-drivers may be happy. SDT posits subjective experience is a more reliable predictor of well-being than objective circumstances: that is, how an individual experiences a controlling environment mediates how that individual will respond. Experiences of driving cessation may provide a more sensitive predictor of well-being than driving status per se. Therefore, ex-drivers' experiences of no longer driving, and enhancing those experiences, should become a focus of research and psychological post-cessation interventions.

Subjective experiences arise from individuals' interpretation of events in relation to their basic psychological needs (Ryan & Deci, 2008). Therefore, to understand subjective experiences an understanding of the nature of basic psychological needs is required (Ryan & Deci, 2008). Within SDT are four connected and integrated mini-theories, the most recent of which is Basic Psychological Need Theory (BPNT). Central to SDT and BPNT is the proposition that there are three psychological (rather

than physiological) innate needs which transcend cultural values (cf. Ryan & Deci, 2000). BPNT examines the extent to which personal and social events meet the needs for autonomy, relatedness and competency and thus promote well-being.

2.4.1 Autonomy

Within SDT and BPNT autonomy is defined in terms of behavioural regulation. Autonomy refers to "self-governance, or rule by the self" (Ryan & Deci, 2006, p. 1562) and "self-endorsement and valuing of one's own practices" (Ryan & Deci, 2008, p. 667). Autonomy is not simply about making choices, one can make many choices but not feel autonomous and one may have a single option and yet feel autonomous, rather it is about endorsing the chosen option(s) (Ryan & Deci, 2006). Therefore, if dependence on others is self-endorsed one can be autonomous and dependent. Moreover, autonomy is a matter of the extent to which behaviour is regulated, with autonomy falling on a continuum from external regulation to intrinsic motivation (Deci & Ryan, 2000b; Ryan & Deci, 2006). Sources of external regulation such as inner impulses or demands (e.g., addiction) or external contingencies of reward and punishment (e.g., payment and fines, respectively) are experienced as pressuring or foreign. Sources of intrinsic motivation originate within the phenomenal self (Ryan & Deci, 2006), are experienced as being aligned with one's values and beliefs, and are based on interest in the behaviour in and of itself.

Through autonomy individuals match their actions to their many and varied felt needs and available resources (Ryan & Deci, 2000). Many environmental conditions may limit or thwart autonomous regulation. Environmental conditions that are excessively controlling (i.e., where coercion and/or enticement outweigh an individual's awareness of, and responses to, inner preferences and aspirations) tend to limit or thwart autonomous need satisfaction (Deci & Ryan, 2000b; Ryan, 2009). Many different

social contexts and events can be evaluated with regards to their potential for supporting or hindering autonomy need satisfaction, and consequently their impact on well-being. Driving cessation may therefore be evaluated for its potential for supporting or hindering autonomy. Those who have given up driving commonly bemoan loss of independence (M. J. Bauer, Rottunda, et al., 2003; Bonnel, 1999a; Deci & Ryan, 2000b; Ryan, 2009). Independence is distinct from autonomy[2], but autonomy is diminished when an individual is dependent on others for transport and taking lifts is not self-endorsed. No longer driving may present circumstances that are excessively controlling and not supportive of autonomy need satisfaction. Opportunities for individuals to self-organise and self-regulate may become limited, and the availability of meaningful options from which to choose may be reduced or extinguished after driving ceases.

With regard to the stress-coping model, SDT informed the conceptualisation of an internal secondary stressor as the hindering/thwarting of autonomy need satisfaction. It is unclear whether driving status and autonomy need satisfaction are associated; but it is thought driving cessation would be associated with diminished sense of autonomy. SDT research indicates hindering/thwarting of autonomy need satisfaction is associated with poorer well-being (Deci et al., 2001; Reis et al., 2000).

2.4.2 Relatedness

Relatedness is the experiencing of a relationship with others (Deci & Ryan, 2000b). There is an abundance of research, not limited to SDT guided research, supporting the theory that relatedness is associated with well-being (Ryan, 2009; Ryan & Deci, 2000). Not all aspects of a relationship, however, will engender well-being: social relations can be significant sources of stress as well as sources of support. SDT posits that the quality of relatedness, in terms of attachment and intimacy, is critical for

[2] In SDT, autonomy is differentiated from independence. An individual may, for example, be autonomously independent or be forced to be independent (Ryan, 1993 – see Ryan & Deci, 2008).

well-being (Ryan & Deci, 2001). Furthermore, relatedness quality is dependent on autonomy and competence needs satisfaction within the relationship (La Guardia, Ryan, Couchman, & Deci, 2000; Lynch, La Guardia, & Ryan, 2009).

SDT draws from Attachment Theory in which the dynamics of human relations are described according to the propensity of individuals to form strong emotional bonds to specific others (Bowlby, 1977). The degree to which attachment to others is 'secure' versus 'insecure' depends on feeling a sense of autonomy and competence in the relationship, and secure attachment fosters well-being (Ryan & Deci, 2000, 2001). Overly controlling relationships (no matter how warm and friendly the individual doing the controlling) negatively impact well-being (Ryan & Deci, 2000). Intimacy in relationships also engenders relatedness, which in turn fosters well-being, especially among older adults (Carstensen, Fung, & Charles, 2003; Carstensen, Isaacowitz, & Charles, 1999). There are a number of pathways, such as controlling relationships and loss of intimacy, through which driving cessation may effect relatedness need satisfaction. No longer driving is associated with limited opportunities for social interaction, increased loneliness, and increased reliance on friends or family members for transportation (M. J. Bauer, Rottunda, et al., 2003; Bonnel, 1999a; Marottoli et al., 2000). Consequently, for many older adults giving up driving could undermine the satisfaction of relatedness needs, leading to poorer well-being.

In addition to autonomy, the hindering/thwarting of relatedness need satisfaction was included in the stress-coping model of the post-cessation phase of driving as an internal secondary stressor. Driving cessation research findings (M. J. Bauer, Rottunda, et al., 2003; Bonnel, 1999a; Marottoli et al., 2000) indicate driving status and relatedness need satisfaction would likely be associated, this has yet to be empirically tested. Both driving cessation and the hindering/thwarting of relatedness need satisfaction are associated with poorer well-being, as discussed previously.

2.4.3 Competence

Generally, behaviour is aimed at producing an effect on the environment, and being able to successfully exert such effects is regarded as inherently satisfying (Deci & Ryan, 1985). An accumulation of effective interactions with the environment gives rise to feelings of competence. Circumstances that are overly challenging pose a threat to competence need satisfaction. Satisfying competency needs is important for well-being, it is also important for the role it plays in enhancing autonomy need satisfaction (Deci & Ryan, 2000b). The positioning of competency into the post-driving cessation stress-coping model is not straightforward: it seems likely sense of competency could be a primary and a secondary stressor. As a primary stressor, a low sense of competency may contribute to the decision to stop driving. As a secondary stressor, no longer driving may adversely affect sense of competence. For the purposes of this research project competency is treated as a secondary stressor. Competency need satisfaction is considered a secondary stressor because it seems likely that no longer driving is associated with poor need satisfaction, this has yet to be empirically tested. During the decision phase of driving, driving ability gives the sense of being just as able as others and more able than those of a similar age who have given up driving (Hiscock et al., 2002), this suggests maintaining the ability to drive is supportive of sense of competence. However, when driving privileges are withdrawn (e.g., due to poor eyesight) and driving is no longer possible, one's sense of being just as able as others post-cessation may be diminished. In addition, post-cessation circumstances may not be supportive of competence, for example, when out-of-home mobility is restricted (Marottoli et al., 2000), relative confinement to one's home may limit opportunities for demonstrating competence and limit attainment of desired outcomes. In short, post-driving cessation circumstances may not be supportive of competency need satisfaction for some individuals, leading to lower need satisfaction and poorer well-being.

2.4.4 Self-Determination Theory, the Stress-Coping Model and Driving Cessation

SDT theory states satisfaction of all three needs is necessary and sufficient to support optimal development and well-being, and that, limited or thwarted needs leads to significant negative consequences, including various forms of psychological ill-being (Ryan & Deci, 2000). Level of need satisfaction is thought to depend on available nutriments (i.e., supportive psychological and environmental conditions), and much of SDT research has sought to identify the conditions under which need satisfaction is supported or thwarted, (e.g., Chirkov et al., 2005). Implicit in SDT is that no other needs warrant inclusion into the theory. Competency, autonomy, and relatedness are the only true needs, and by true needs SDT means: "something that, when fulfilled, promotes integration and well-being, and when thwarted fosters fragmentation and ill-being" (Ryan & Deci, 2000, p. 324). Others have suggested there are more than three basic psychological needs (Andersen, Chen, & Carter, 2000; J. J. Bauer & McAdams, 2000; Ryan & Deci, 2000). However, SDT authors argue that according to their criteria for basic psychological needs, proposed additional needs are either not true needs (as they are defined by those who argue for their inclusion as true needs) or do not contribute significantly to the theory (cf. Ryan & Deci, 2000). As stated previously, SDT informed the conceptualisation of internal secondary stressors in the stress-coping model of driving cessation as the hindering/thwarting of basic psychological need satisfaction. Post-cessation conditions may diminish self-determination and the consequences of this, on well-being, will be negative.

A caveat, despite the substantial body of research supporting SDT, few studies indicate whether the theory holds true among older adults (Philippe & Vallerand, 2008). Key to SDT and the theory of three basic psychological needs is the claim that the theory holds true across the lifespan (Deci & Ryan, 2000a, 2000b). Ageing, however, is

often a period of gains and significant physical and cognitive losses (P. B. Baltes, 1987), which may present severe limitations on need satisfaction (Coleman, 2000). SDT argues the resources available to satisfy needs may change with age but the importance of need satisfaction does not (Ryan & Deci, 2000). The majority of adults give up driving after age 65 years (Foley et al., 2002). If the theory holds true for older adults and the importance of need satisfaction diminishes with older age, need satisfaction may not provide the best conceptualisation of secondary stressors in the stress-coping model. However, considering the mediating role of need satisfaction, SDT represents a promising avenue for better understanding the mechanisms linking driving cessation with well-being. Similarly, considering the role of coping strategies used to manage conditions that are not supportive of need satisfaction will add to understanding the complex relationship between driving cessation with well-being.

2.5 Theories of Self-regulation

According to SDT, the conditions necessary for well-being are those that facilitate attainment of autonomy, relatedness, and competency needs (Deci & Ryan, 2000a, 2000b; Ryan, 2009; Ryan & Deci, 2000). Conditions, however, are not always favourable for need satisfaction. When circumstances limit but do not thwart need satisfaction, individuals frequently draw on coping strategies in attempts to satisfy their needs (Deci & Ryan, 2000b). Individual differences in the use of coping strategies are likely important in determining the extent to which driving cessation affects well-being.

In older age, if significant physical and cognitive losses are experienced these changes may present severe barriers to need satisfaction (Coleman, 2000). These changes may be classed as developmental or situational. Developmental changes, such as transformations in physical and/or cognitive functioning in older age, may lead to situational changes. Situational changes are changes in circumstances not directly associated with human development; one example is giving up driving. Past research shows situational losses, specifically no longer driving, are related to poorer psychological health (Edwards, Perkins, et al., 2009; Fonda et al., 2001; Marottoli et al., 1997; Ragland et al., 2005; Windsor et al., 2007). Life-long development and stress/coping research present a number of potentially useful conceptual frameworks for exploring and understanding why some older adults do not experience poorer well-being after giving up driving.

A number of theories seek to explain optimal human development, in which individuals play an active part in balancing gains and losses. The three major theories are: Selection, Optimisation, and Compensation (SOC) (P. B. Baltes, 1987, 1997), the life-span theory of control (Heckhausen & Schulz, 1995; Schulz & Heckhausen, 1996), and the dual-process model of assimilative and accommodative coping (Brandtstädter,

2009; Brandtstädter & Renner, 1990a; Brandtstädter, Thomas, & Fredda, 1999). The central features of all three theories are concerned with improvement/maintenance and reorientation processes (Boerner & Jopp, 2007b). Research demonstrates consistent positive associations between the use of particular self-regulation strategies and positive outcomes. Effective self-regulation appears to mediate the influence of stress on the outcomes of adjusting to unfavourable conditions, and that enhanced quality of life or decreased psychological distress reflects successful coping with stressors (Coyne & Racioppo, 2000). The Assimilative and Accommodative Model of Coping (Brandtstädter & Renner, 1990a) was selected as the model of coping in this research project[3]. The model of coping is described below, and it's utility for exploring individual differences in driving cessation experiences and well-being is discussed.

2.5.1 Assimilative and Accommodative Model of Coping

Brandtstädter and colleagues propose a dual-process model of assimilative and accommodative coping that focuses on personal self-regulation of development and whether development is satisfactory (Brandtstädter, 1999; Brandtstädter & Renner, 1990a; Mueller & Kim, 2004). Self-regulation involves self-monitoring, that is, assessing current and anticipated development/life circumstances against one's preferred development/life circumstances, and responding to discrepancies between actual and desired current and future development/life circumstances (Brandtstädter & Renner, 1990a). Individuals respond to perceived discrepancies using assimilative and accommodative processes to either make unsatisfactory development/life circumstances more satisfactory or make unsatisfactory development/life circumstances appear less

[3] The Assimilative and Accommodative Model of Coping (Brandtstädter & Renner, 1990a, 1992) shares many characteristics with a life-span theory of control called the Optimisation in Primary and Secondary Control (OPS) model, the latter includes selection and compensation as essential processes of adaptation (Boerner & Jopp, 2007b; Schulz & Heckhausen, 1996). The Assimilative and Accommodative Model of Coping, however, is the most recent and parsimonious of the theories (Brandtstädter, 1999, 2009; Brandtstädter & Renner, 1990a; Brandtstädter & Rothermund, 2002).

negative or more satisfactory. The overall aim is to keep the balance between developmental and situational gains and losses favourable (P. B. Baltes, 1987; Brandtstädter & Renner, 1990a, 1992). The strength of the model is in its capacity to account for the paradox of psychological health in the face of significant loss. When faced with uncontrollable events and often irreversible losses individuals will not necessarily experience or endure long periods of poor psychological health (Brandtstädter & Renner, 1990a, 1992). This is particularly useful for this project, which seeks to explain why older adults faced with no longer driving and its associated losses, with no hope of being able to drive again, do not necessarily experience worsened depressive symptoms.

Assimilative and accommodative processes are ways of solving or neutralising discrepancies between actual and desired states of being (Brandtstädter & Renner, 1990a, 1992; Brandtstädter & Rothermund, 2002; Rothermund & Brandtstadter, 2003). Situational parameters (e.g., perceived controllability, personal valence of the situation, and personal behavioural tendencies) will dictate which process initially dominates during a discrete coping episode, and determine the point at which there is changeover between the processes (Brandtstädter & Renner, 1990a). On the one hand, assimilative and accommodative processes are distinct and opposite processes, in the sense that assimilative processes are 'deliberately chosen' reasoned action and accommodative processes are 'not deliberately chosen' subconscious action that "simply" happen (Brandtstädter & Renner, 1990a, p. 59). On the other hand, they are not mutually exclusive. There is evidence that assimilation and accommodation are two distinct and complementary modes of coping (Brandtstädter & Renner, 1990a; Jopp & Schmitt, 2010; Mueller & Kim, 2004; Schmitz, Saile, & Nilges, 1996), that when operating together promote stability and personal continuity over the life span (Brandtstädter & Rothermund, 2002) and serve to maintain psychological health (Brandtstädter &

Renner, 1990a). Research suggests there is a shift from assimilative modes of coping towards accommodative modes of coping with ageing (Boerner, 2004b; Brandtstädter & Rothermund, 1994; Rothermund & Brandtstadter, 2003). What follows is a description of assimilative and accommodative processes, an evaluation of the model, and how the model is used in this research project.

2.5.1.1 Assimilative processes

Assimilative processes involve deliberate reasoned action in a persistent effort to maximise gains and to avoid or correct actual or anticipated developmental losses, through readjustment of behaviour or life style, to ensure development/life circumstances are satisfactory (Brandtstädter & Renner, 1990a). There is a tendency for the focus of assimilative action to shift from promoting gains toward minimising/preventing and compensating for losses (Brandtstädter & Rothermund, 2002). Action (instrumental, self-corrective or compensatory) is taken to actively bring circumstances into line with one's preferences and goals. Assimilative processes are also known as tenacious goal pursuit (Brandtstädter & Renner, 1990a). In the context of driving cessation, assimilative processes include instrumental activities such as making lifestyle changes (e.g., changing the frequency/location of shopping), self-corrective activities such as acquiring relevant knowledge (e.g., learning local bus routes and timetables), and/or compensatory actions (e.g., using external support such as accepting a lift) to avoid or correct some problematic life circumstance (e.g., no longer having access to private transportation) (Brandtstädter & Renner, 1990a). Assimilative processes tend to dominate the initial stages of a discrete coping episode unless the situation appears beyond the individual's control, the situation is not open to change, or when there are intolerable costs associated with assimilative behaviour (Brandtstädter & Renner, 1990a, 1992).

2.5.1.2 Accommodative processes

Accommodative processes, otherwise known as flexible goal adjustment (Brandtstädter & Renner, 1990a), are not conscious reasoned acts and as such cannot be directly observed. Accommodation involves subconscious adjustments and revisions of hopes, desires, values and goals, to make unsatisfactory development/life circumstances seem less negative or more satisfactory than they actually are. Engaging accommodative processes entails a readiness to switch from ineffectual means for goal attainment to more effective means and requires a capability to disengage from goals that are not attainable (Brandtstädter & Rothermund, 2002). Accommodative outcomes include adjustment of aspirations, revision of value priorities, finding meaning, acceptance, disengagement from barren preferences and goals, and the re-focussing of assimilative efforts toward new, more feasible goals (Brandtstädter & Renner, 1990a, 1992; Brandtstädter & Rothermund, 2002).

Processes of accommodation, which account for continued well-being under life circumstances that could be regarded as negative (Brandtstädter & Renner, 1990a), may account for the absence of worsened depressive symptoms after giving up driving. In the specific context of driving cessation, accommodative processes (Brandtstädter & Renner, 1990a, 1992; Brandtstädter, Wentura, & Greve, 1993) will be activated when discrepancies emerge between actual or perceived life circumstances and desired life circumstances (e.g., out-of-home restricted mobility post-driving cessation is experienced when maintaining pre-cessation activities is preferred). Further, accommodative processes will be activated after assimilative processes have become ineffective (e.g., alternative transport cannot be found) or when psychological/financial costs associated with assimilative actions are considered to be intolerably high (e.g., sense of burden accepting lifts/the cost of unsubsidised taxi fares).

Accommodative processes are said to have occurred when there has been more or less radical revision of personal aspirations, preferences, goals and/or life design (Brandtstädter & Renner, 1990a, 1992). Some examples include: a shift in meaning ascribed to an event (e.g., ownership is taken of the decision to give up driving); devaluation of difficult to fulfil preferences/goals (e.g., a visit to the botanic gardens becomes less desirable); revision of evaluative standards (e.g., taxi travel now seems cheap in comparison to the expenses of owning and driving a car); and, comparative evaluation, such as downward social comparison (e.g., an ex-driver sees they are better off compared with friends who no longer drive). As a consequence of each shift in cognitions, the negative effect of unsatisfactory circumstances are neutralised without changing the unsatisfactory circumstances (e.g., no longer driving seems less negative) (Brandtstädter & Renner, 1992).

2.5.1.3 Empirical support

The theory asserts that discrepancies between preferred and actual life circumstances activate assimilative and accommodative processes, which support wellbeing through keeping the balance between developmental and situational gains and losses favourable (Brandtstädter & Renner, 1990a, 1992; Brandtstädter & Rothermund, 1994; Brandtstädter et al., 1993). It is beyond the scope of this chapter to detail the evidence underpinning the theoretical basis of the Assimilative and Accommodative Model of Coping. A comprehensive discussion of the Model can be found in Brandtstädter and colleagues (1993).

The explanatory and predictive scope of the Assimilative and Accommodative Model of Coping is demonstrated in a substantial body of empirical research. Empirical research has revealed that stronger dispositional assimilative and accommodative coping tendencies predict the absence of, or fewer, depressive symptoms (Boerner, 2004b; Brandtstädter, 1992; Brandtstädter & Renner, 1990a; Kelly, Wood, & Mansell,

2013; Schmitz et al., 1996; Seltzer, Greenberg, Floyd, & Hong, 2004), more satisfaction with life (Brandtstädter & Renner, 1992), higher positive and lower negative affect (Heyl, Wahl, & Mollenkopf, 2007), better quality of life (Darlington et al., 2007), higher self-esteem (Brandtstädter & Greve, 1994), more optimism (Brandtstädter, 1992), overall life happiness, and self-acceptance (Mueller & Kim, 2004). Conversely, individuals who adhere to valued overly challenging goals, rather than disengaging from them, experience strong depressive symptoms, specifically when self-efficacy is perceived as weak (reported in Brandtstädter et al., 1993).

2.5.1.4 Evaluation of the Assimilative and Accommodative Model of Coping

A strength of the Assimilative and Accommodative Model of Coping is that the model addresses some of the assumptions and limitations of coping research. For example: coping effectiveness cannot be evaluated without referring to goals and there being no indication that reduction in psychological distress results from any specific goal(s) being attained (Coyne & Racioppo, 2000). The assimilative and accommodative model focuses on coping strategies that incorporate shifting goal preferences and there is no need to make reference to any one specific goal. Exploring the relationship between driving cessation, coping, and psychological distress need not focus on any one specific goal, but may focus instead more generally on needs that are no longer being met following driving cessation. There is strong indication that reduction in psychological distress results from specific needs being attained (discussed above) rather than specific goals.

The claim that assimilative processes are adaptive, rational, and intentional (Brandtstädter & Renner, 1990a, 1992; Brandtstädter & Rothermund, 2002), however, is not thoroughly explored. If assimilative processes are rational and intentional, the process must involve some form of self-reflection (Carver & Scheier, 2000). For self-reflection to occur there needs to be the capability to exercise introspection, to have

self-awareness, and a willingness to learn from one's own experiences (Grant, Franklin, & Langford, 2002). And, while self-reflection may be adaptive when it leads to finding solutions when there are solutions to be found, it may be maladaptive when the individual persists when there are no solutions to be found (Hixon & Swan Jr, 1993). Potentially, ex-drivers who persist with assimilative coping strategies when there are no solutions to be found, and reflect on this failure, are unlikely to benefit from the buffering effects assimilative coping would ordinarily be expected to have on well-being. Further, they may be more likely to experience helplessness and despair. In addition, while self-reflection is associated with problem solving and the promotion of psychological health, self-reflection is not necessarily adaptive when psychological health is poor, specifically during depressive episodes (Takano & Tanno, 2009). Brandtstädter and colleagues' model assumes self-reflection occurs and that self-reflection is adaptive. However, self-reflection may not be adaptive among ex-drivers for who depressive symptoms contributed to giving up driving. These individuals may endorse strong tendencies toward assimilative coping but fail to effectively problem solve and focus more on their failures. Assimilative coping may thus prove to be less protective among these ex-drivers.

The switch from assimilative to accommodative processes, which involves cognitive appraisal and control beliefs such as evaluating whether or not circumstances are under the individual's control (Brandtstädter & Renner, 1990a, 1992), by necessity relies on an awareness and a realistic appraisal of whether or not circumstances are open to modification and the associated costs of continued goal pursuit. Limited awareness and unrealistic appraisals may lead to the persistent pursuit of blocked preferences and unattainable goals. Brandtstädter and colleagues model assumes accurate appraisal of control potentials and limitations for corrective action, and that resignation and an inhibition of instrumental efforts will naturally follow from a negative evaluation. The

model does not account for limited self-awareness and unrealistic appraisals which would inhibit the switch from assimilative to accommodative processes, leading to rigid perseverance toward unattainable goals. Instead, the model assumes rigid perseverance is simply an indication of failed assimilative processes, that is, failure to disengage from ineffective paths of action (Skinner et al., 2003) and does not go on to account for when or why this might occur. If assimilative tendencies fail to mediate the driving-cessation-well-being relationship it will not be possible to identify whether this is due to the failure of assimilative coping, to limited self-awareness, or an unrealistic appraisal of the circumstances.

2.5.1.5 The model and this research project

The dual-process assimilative and accommodative model posits that successful assimilative efforts lead to avoidance or correction of actual or anticipated losses and, in the event of assimilative efforts failing, successful accommodative efforts lead to acceptance, disengagement from barren preferences and goals, and the focussing of assimilative efforts toward new, feasible goals (Brandtstädter & Renner, 1990a, 1992; Brandtstädter & Rothermund, 2002). Assimilative efforts can be applied to any domain of life that is deemed open to modification and where resources and (if required) external supports and resources are available (Brandtstädter & Renner, 1992; Brandtstädter & Rothermund, 2002). Efforts are most strongly applied in circumstances when preferences and or goals are central to the individual's identity or life design (Brandtstädter & Rothermund, 2002). Driving cessation research indicates having a driving licence and being able to drive play a significant role in the individual's identity (Eisenhandler, 1990; Hiscock et al., 2002) and life design (Burkhardt, 1999; Kim & Richardson, 2006; Liddle et al., 2007). Therefore, motivation to engage in assimilative efforts to protect one's sense of identity and maintain one's preferred life style post-driving cessation might be expected to be strong.

However, at ages most adults give up driving (cf. Foley et al., 2002) there tends to be additional developmental and situational losses including fewer years to live, increasing physiological, cognitive and/or functional impairment, and reduced social support. These resource limitations, in turn, lead to a diminishing number and variety of assimilative processes that are available to draw from (P. B. Baltes, 1987; Brandtstädter & Renner, 1992; Brandtstädter & Rothermund, 2002; Brandtstädter et al., 1993). In line with the assimilative and accommodative model, when a blocked goal, such as driving capability which is central to identity and life design, cannot be substituted by other equally satisfying options, disengaging from the goal of driving is likely to be painful and challenging. This indicates the relationship between driving cessation and worsened depression may reflect the emotional response "depression / resignation" to failed assimilative efforts described in the assimilative and accommodative model (see Figure 16.1, in Brandtstädter & Renner, 1992, p. 304). Ex-drivers who readily switch from assimilative processes to accommodative processes should, in theory, experience acceptance and disengagement from the goal of driving, and from those life design preferences and goals blocked irrevocably because they can no longer drive. In turn, ex-drivers who switch to accommodative processes may be less likely to experience prolonged depressive symptoms post-driving cessation than ex-drivers who have weaker tendencies toward accommodative coping.

The neutralising effect of accommodation on discrepancies between actual and desired current life circumstances has a buffering effect on the impacts of negative events on well-being (Buys & Carpenter, 2002a). This effect holds true for older adults: the relationship between age-related developmental losses and poorer well-being is moderated in older adults who endorse high scores on a measure of flexible goal adjustment (reflecting strong accommodative tendencies) (Brandtstädter et al., 1993). Logically, accommodation's neutralising effect on discrepancies between actual and

desired current life circumstances may buffer the negative effect of driving cessation on well-being, as represented in the stress-coping model (see Figure 2, above).

2.6 Well-Being

There is no clear definition of well-being: some view well-being in terms of affective states (a hedonic affect approach), some see it in terms of cognitive states, and others as a composite of the two (F. M. Andrews & Withey, 1976; Diener, 1994; Diener, Emmons, Larsen, & Griffin, 1985; Ryan & Deci, 2000). Well-being defined from a hedonic affect approach involves the experience of a positive emotional state, that is, the presence of positive emotions and the absence of negative emotions (Diener, 1994; Parfit, 1984; Tiberius, 2006). A criticism of this approach is that it simplifies well-being to a moment in time and it does not capture the complexities of aspirations and needs (Ryan & Deci, 2000). The cognitive approach to well-being involves evaluation of how one's life is proceeding: positive well-being is experienced when the evaluation is positive (Angner, 2010); specifically, when one's actual/perceived life closely matches one's desired life. A criticism of the cognitive approach and the hedonistic affect approach is that they fail to take into consideration a deeper sense of well-being: the sense of reaching one's potential (Deci & Ryan, 2000a; Ryan & Deci, 2000). An assumption of both approaches is that positive affect and life satisfaction are the essence of well-being rather than leading to well-being and that subjective well-being and well-being are one and the same. The eudaimonic approach focuses on human flourishing, specifically psychological wellness (Delle Fave et al., 2011; Rogers, 1965; Ryan & Deci, 2000). This approach takes the position that well-being involves self-actualisation into a fully-functioning person leading to genuine satisfaction (Rogers, 1965).

SDT subscribes to a eudaemonist approach where well-being is defined as human flourishing and involves the attainment of core human needs. Experiences of competence, autonomy, and relatedness do not define well-being, rather, they are

necessary for well-being (Ryan & Deci, 2000). Positive affect without need satisfaction is short lived and it is only when core needs are met that a fuller, more enduring, and deeper sense of well-being is experienced (Ryan & Deci, 2000). Similar to SDT, the Assimilative and Accommodative Model of Coping subscribes to a eudaemonist approach where well-being is defined as life satisfaction and successful ageing (Brandtstädter & Renner, 1990a). The theoretical background of the model is human development, specifically personal self-regulation and the balancing of developmental gains and losses (Brandtstädter & Renner, 1990a). Incorporated into the model are cognitive appraisals, control beliefs, and emotions (Brandtstädter & Renner, 1990a). The absence of well-being in the model is conceptualised as depression with the duration and severity of depressed mood depending on attribution style, control beliefs, and the individual's willingness and aptitude to perform accommodative modes of coping (Brandtstädter & Renner, 1990a).

To address the criticisms of any one single approach to defining well-being, and to maintain consistency with the previous research on driving cessation, this research project takes into consideration the immediacy of a positive affective state (feelings of happiness) and the absence of negative affect, self-evaluation of fit between aspirations and life circumstances (satisfaction with life), and a deeper more enduring sense of well-being (psychological health).

2.7 Research Questions

As discussed in the previous chapter, older adults' experiences of giving up driving may include multiple losses, such as loss of independence and spontaneity (M. J. Bauer, Rottunda, et al., 2003; Bonnel, 1999a; RACV, 2009) and that driving cessation is believed to lead to poorer well-being (e.g., Edwards, Lunsman, et al., 2009; Edwards, Perkins, et al., 2009; E. E. Freeman et al., 2006; Marottoli et al., 1997; Windsor et al., 2007), which includes increased depressive symptoms (Legh-Smith et al., 1986; Marottoli et al., 1997; Ragland et al., 2005; Windsor et al., 2007) and emotional distress (Adler & Rottunda, 2006; Bonnel, 1999a; J. E. Johnson, 1999; RACV, 2009; Whitehead et al., 2006). Driving cessation research suggests no longer driving is challenging and ex-drivers may struggle to meet their needs that were once met by driving. Here, attention is given to the effects of being an ex-driver on well-being among older adults in Australia, informed by a stress-coping model (Figure 2, in section 2.3.1); the three studies discussed in subsequent chapters seek answers to the following questions (displayed in Table 1, Section 2.3).

First, what are the experiences of older adults who give up driving? An assumption of the stress-coping model is that driving cessation experiences may be positive, negative, or neutral. Because previous research has focused almost exclusively on negative experiences, here a broader approach is adopted to explore the variety of stressors experienced as well as positive experiences. Second, what is the impact of driving cessation on well-being? In addition to seeing whether the relationship between driving status and depressive symptoms findings in previous research will be replicated, positive impacts which have not been explored previously are taken into consideration. In an attempt to explain why driving cessation is experienced negatively, question three seeks to discover which mechanisms (psychological needs) driving cessation stressors

affect well-being. That is, whether limited satisfaction of one's psychological needs is a secondary driving cessation stressor, which in turn adversely affects well-being. In addition, feeling one was pressured to stop driving may act as a secondary stressor, influencing one's post-cessation experiences, thus explaining in part why driving cessation is experienced negatively. With regards to the fourth stress-coping paradigm question, what are the buffers of stress?, the Assimilative and Accommodative Model of Coping research indicates dispositional tendencies towards two distinct and interrelated modes of coping buffer the effects of primary and secondary driving cessation stressors on well-being. Therefore, the final research question asks: do Accommodative and/or Assimilative processes buffer the effects of driving cessation on well-being?

2.8 Methodological Paradigm

"Man is the measure of all things"

(Protagoras, 485-411; quoted by Plato, 387-367 BC)

Most researchers hold a preferred method for conducting research: the method they favour is usually the one most familiar to them, is the one they are skilled at using, and is usually either a qualitative method or a quantitative method, rarely a combination of the two (Denzin, 2009; R. B. Johnson et al., 2007). Broadly speaking, the two methods differ in that quantitative methods involve taking measurements and using statistical, mathematical, and or computational techniques, and qualitative methods involve collecting and analysing unstructured data (e.g., conducting content analysis of discussions, interviews, video, audio recordings, text, and/or pictorial representations) (Charmaz, 2003). The use of quantitative methods dominated psychological research throughout the twentieth century (Denzin, 2009). Towards the end of the last century, however, qualitative methods began to receive greater credence (R. B. Johnson et al., 2007). The shift in focus from quantitative to qualitative methods during the twentieth century in psychological research reflects the rejection of positivism (the belief that there is an objective reality, that reality can be measured, and that singular or universal truths can be determined) in favour of constructivism, relativism and hermeneutics (R. B. Johnson et al., 2007).

2.8.1 Mixed Methods Research

Mixed methods research, popular among cultural anthropologists for over six decades, has yet to establish itself as a well-defined and commonly preferred methodology in psychological research. Mixed methods research has particular utility

for the current project for a number of reasons. These are: the intellectual and organisational benefits the method offers at each stage of the research project (Sieber, 1973); the validation strategies benefits that counter the inherent weaknesses and bias of any single method (Denzin, 2009), and added strength the method gives to convergent findings (Patton, 2002). Because mixed methods research is still relatively unfamiliar to psychological researchers and debate continues about what constitutes mixed methods research (R. B. Johnson et al., 2007), a summary description of mixed research methods is provided here, key terms are defined, and the benefits to taking a mixed methods approach in the study of outcomes related to driving cessation are discussed.

2.8.1.1 A definition

Mixed methods research is an approach to knowledge (theory and practice) that attempts to consider multiple standpoints by giving equal status to quantitative methods and qualitative methods (R. B. Johnson & Onwuegbuzie, 2004; R. B. Johnson et al., 2007). Johnson and colleagues define mixed methods research as follows:

> Mixed methods research is the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches (e.g., use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purposes of breadth and depth of understanding and corroboration (R. B. Johnson et al., 2007, p. 123).

More specifically, mixed methods research is research that uses at least one qualitative method and one quantitative method to study the same phenomenon, gives equal status to each method, and takes on the logic and philosophy of mixed methods research as a methodological paradigm in its own right (R. B. Johnson & Onwuegbuzie, 2004; R. B. Johnson et al., 2007).

2.8.1.2 Strengths

A number of publications influenced the decision to combine qualitative and quantitative methods in the current project. Sieber's (1973) paper on the benefits of integrating qualitative and quantitative methods in social research argues intellectual and organisational benefits are obtained during the design, data collection, and analysis phases of research when different research methods are integrated. This was the case in the current project where (as outlined in subsequent chapters) at the research design stage, qualitative data from a focus group discussion were used to support conceptual development of the broader project and development of specific questions for a subsequent qualitative study. Qualitative data from the interviews in the second study assisted with the development of a conceptual model for the driving cessation experience (see Section 2.3.1, above) and facilitated the quantitative component of the research by indicating which areas would benefit from further examination in the third and final study. At the analysis stage, qualitative analyses played an important role in clarifying, describing and validating the qualitative and quantitative findings from the driving cessation literature, as well as grounding the research in an Australian population and modifying the research to include themes not previously explored, (e.g., the positive impacts of giving up driving). In turn, the quantitative component served to provide data to assess the generalizability of the qualitative data and explore further the relationship between driving cessation and well-being.

Denzin's (2009) argues that all research methods have inherent weaknesses and biases and to tackle this issue researchers may draw on a number of research validation strategies. These include between-method triangulation and triangulation of multiple data sources, researchers, and theories. Between-method refers to the use of two or more different methods rather than multiple uses of the same method, and triangulation refers to seeking validation in terms of convergence and corroboration of results

(Denzin, 2009). When two or more different methods are used the strengths of one method are thought to cancel out the weaknesses of the other and minimise bias. Triangulation involves complex processes of playing each method, data source, researchers' observations or theory off against the other so as to maximise the validity of research. The validity of research is enhanced, for example, when findings from two or more methods converge; indicating the findings are likely the result of the underlying phenomenon rather than a methodological artefact (Denzin, 2009; Patton, 2002). In this thesis, data were generated using two dissimilar methods (qualitative and quantitative), data were gathered from multiple sources (independent living and community dwelling older adults, from rural and urban areas, across all states and the Australian Capital Territory), a number of researchers worked closely with the data (fellow PhD candidates and academic staff), and data were approached with multiple theories (detailed above) and hypotheses (discussed in each study) in mind.

2.8.1.3 Philosophical basis and practical application

A challenge to the mixed methods approach is the apparent incompatibility between the philosophy connected with quantitative methods research (positivism) and the philosophy connected with qualitative methods (constructivism). Johnson and colleagues propose the philosophy of pragmatism of the middle integrates realism and antirealism by taking the middle ground and is the most useful approach for mixed methods researchers to take vis-à-vis the theory and practice of their work (R. B. Johnson & Onwuegbuzie, 2004; R. B. Johnson et al., 2007). Pragmatism takes the position that the purpose of research is to facilitate human problem-solving to relieve suffering and benefit mankind, rather than search for truth/reality per se. Pragmatism offers a justification and logic for mixed methods research by arguing researchers should use "the combination of methods and ideas that helps one best frame, address, and provide tentative answers to one's research questions[s]" (R. B. Johnson et al.,

2007, p. 125). The key questions this research seeks to answer are: (1) What are the subjective experiences of older adults who have given up driving?; and (2) Why is it that some older adults experience poorer well-being after driving cessation while others do not? As outlined below, a qualitative approach is best suited to address the first question, whereas a quantitative approach is best suited to address the second.

Rich, in-depth data are needed to adequately describe the subjective experiences of driving cessation, and qualitative research methods are fit for the purpose of gathering rich, meaningful data (Denzin, 2009). The method facilitates a rapid response to data, clarification of meaning, and permits research flexibility because the researcher is able to shift the focus of the enquiry in response to the data (Patton, 2002). Quantitative methods are less suitable for the assessment of older ex-drivers' subjective experiences as they may lead to the selection of categories or measures that do not reflect participants' actual experiences. Moreover, participants' understanding of their experiences of driving cessation may be missed if the research focus is constrained to the use of pre-determined questionnaire items. As outlined in Chapter 1, research indicates one element of the driving cessation experience is an increase in depressive symptoms (Fonda, et al., 2001; Marottoli, et al., 1997), but clearly not all older adults who give up driving experience increased depressive symptoms. The qualitative method enables identification of participants who describe having experienced depressive symptoms as part driving cessation, and elicit more detailed information; as well as identifying participants who do not experience depressive symptoms and explore why that might be.

Quantitative methods are more suitable than qualitative methods for identifying associations among variables, such as driving cessation and depressive symptoms; examining the factors that might explain and/or predict increases in depressive symptoms post-driving cessation, such as limited psychological need satisfaction; and,

enabling research to explore the protective factors for driving cessation outcomes, such as engaging in assimilative and/or accommodative coping strategies. Furthermore, quantitative methods are more suited than qualitative methods to provide evidence which is more likely to be generalizable from a sample to the population.

Chapter 3

STUDY ONE

3.1 Abstract

An exploratory design was adopted to conduct this first study. The aims of this study were to: identify and explore the nature of subjective experiences associated with driving cessation in later life, including positive impacts and those that have not emerged in the previous research, and explain these findings in the light of research literature; identify and describe individuals' responses to post-cessation challenges; and collect relevant data to inform content and form of the interview questions to be used in subsequent studies in this research. Rich in-depth data were collected through focus group discussion with 5 ex-driver participants. Four were female, ages ranged from 72 to 85 years, (M = 81 years, SD = 5.1). The focus group discussion was transcribed verbatim and Lindseth and Norberg's (2004) phenomenological hermeneutic method informed analysis of the data. Participants formed a narrative of their driving cessation experiences, placing personal experiences of driving cessation into the broader context of their life. Results indicated that the timing and circumstances under which older adults give up driving appears to influence post-cessation experiences. Rather than the car per se, emotional investment was placed on goals that being able to drive enabled individuals to attain. Individuals expressed dissatisfaction at perceived needs, such as independence, not being met. Dependence on others for transportation was accompanied with sense of burden and indebtedness: the experience sometimes included frustration and worry, leading to feelings of guilt. Coping reactions to no longer driving were geared toward intentionally transforming unsatisfactory conditions and/or the adjustment of preferences and goals. When coping was effective personal growth was experienced. Unique to this study is the identification and exploration of psychological coping strategies and positive impacts of giving up driving, such as personal growth and reduced stress.

3.2 Introduction

The majority of older adults who give up driving do so because of irreversible health declines (Anstey et al., 2006; Edwards et al., 2008; Hakamies-Blomqvist & Wahlström, 1998) and rely on family members and friends for transportation rather than public transport services (Davey, 2007; L. P. Kostyniuk & Shope, 2003). Ex-drivers report loss of independence and spontaneity; a reduction in participation levels and motivation to engage in out-of-home activities; increased frustration, loneliness and sadness (Adler & Rottunda, 2006; M. J. Bauer, Rottunda, et al., 2003; Bonnel, 1999a; Davey, 2007; J. E. Johnson, 1998; Liddle et al., 2008), and poorer psychological health (Legh-Smith et al., 1986; Marottoli et al., 1997; Ragland et al., 2005; Windsor et al., 2007). Giving up driving may also lead to poorer physical health (Bedard & Kafka, 2008; Siren et al., 2004) and increased risk of mortality (Edwards, Perkins, et al., 2009). Given the impacts of giving up driving are often negative and driving cessation may not be preventable, measures should be taken to avert the detrimental impacts of driving cessation. However, preventative measures may have limited efficacy because few older adults plan for driving cessation (Charlton et al., 2006; L. P. Kostyniuk & Shope, 2003). Consequently, identifying and mitigating the negative impacts of giving up driving post-cessation becomes important. To achieve this, an understanding of older adults' driving cessation experiences is required.

To fully understand how older ex-drivers deal with losses related to driving-cessation and increased levels of emotional distress, research must consider both behavioural and psychological coping strategies used by older adults. Considerable attention has been given to the behavioural coping strategies used by ex-drivers to adapt to no longer driving. Behavioural coping strategies involve taking action, such as list-making, planning ahead, using alternative means of transport, accepting help from

others, and shopping closer to home. Of equal importance, especially as individuals reach older age, are psychological coping strategies (Boerner, 2004a; Brandtstädter & Greve, 1994). Driving cessation research has given little attention to psychological coping strategies involving changing what one thinks/the way one thinks, such as accepting unalterable circumstances. Ex-drivers' stories of driving cessation have conveyed a sense of acceptance about no longer being able to drive and new post-cessation ways of life (Buys & Carpenter, 2002b). Once the change of lifestyle following cessation of driving has been accepted, ex-drivers go on to develop strategies to resume their valued daily activities. This suggests that adopting psychological coping strategies may need to occur before some behavioural coping strategies are developed and used, such as finding alternative transport.

Most of what is understood about older adults' subjective experiences of driving cessation is drawn from a handful of studies. Bonnel (1999a) and Bauer and colleagues (M. J. Bauer, Rottunda, et al., 2003) findings indicate ex-drivers may face multiple and often overwhelming losses, creating a need for adjustment. Commonly cited experiences of no longer driving include loss of independence, loss of spontaneity, and finding ways of dealing with losses. Bonnel (1999a) analysed secondary data from a larger study investigating older women's challenges and strategies for meal management (1999b); Bauer and colleagues (2003) focused on the decision phase of driving, some driving cessation lifestyle changes were noted, mainly post-cessation transportation and mobility status changes. It is unknown whether participants' comments about and responses to questions directly related to no longer driving might differ from responses to questions about challenges and strategies for meal management and current transportation and mobility status. More rigorous and compelling evidence of the complexities of the driving cessation experience come out of Australasia (Davey, 2004, 2007; Liddle et al., 2008). Purposeful sampling methods and face-to-face semi-

structured interviews were conducted with older adults, to seek the experiences of those who no longer drive. Liddle and colleagues also sought driving cessation experiences from the perspective of ex-driver family members and health professional with experience in the field. Both studies identified multiple losses experienced by those who no longer drive and indicated that over time many ex-drivers adjust to not driving. Ex-drivers reported losing independence, freedom, and pleasure in life after giving up driving, as well as coping through public transport use and obtaining lifts from family and friends. These findings were discussed in greater detail in Chapter 1.

Generally, qualitative research on driving cessation has used basic data analysis techniques to identify themes from semi-structured interview responses. These techniques involve generating major categories used to provide a description of the data (Adler & Rottunda, 2006; M. J. Bauer, Rottunda, et al., 2003; Bonnel, 1999a; Davey, 2004, 2007; J. E. Johnson, 1998, 1999; Liddle et al., 2008) Johnson (1998, 1999). Identification of themes in a descriptive fashion is classed as low level analysis (Bazeley, 2009). Identifying themes can be useful during the early stages of exploratory research as it constitutes an initial step in the analytic process and it is a good starting point. In fact, one of the aims of this study, the first in this research project, is to identify potential areas for further exploration. However, descriptive analysis alone has limited utility. Descriptive analysis has been described as 'garden path analysis' because the reader is taken "along a pleasant pathway that leads nowhere" (Bazeley, 2009, p. 6) and on its own it has limited value. Most driving cessation studies described participants' lived experiences but went no further in the analysis.

Employing a higher level of analysis (cf. Kvale, 1996) has enabled some researchers, for example Bauer and colleagues (2003) and Davey (2004, 2007), to develop a more meaningful analysis of the data leading to potentially more useful findings. Bauer and colleagues (2003) extended descriptive analysis of themes,

adopting narrative structuring to more fully bring out the meaning in the data. This enabled information about the lived experience of the post-cessation phase to be obtained and to be put into the context of participants' broader thoughts and feelings regarding being a driver, giving up driving, and no longer driving. Findings indicated women who give up driving voluntarily and plan ahead tend to adapt to no longer driving without difficulty, and changes accompanying driving cessation need not always be overwhelming or distressing (M. J. Bauer, Rottunda, et al., 2003).

Davey (2004, 2007) made a distinction between 'serious' and 'discretionary' travel, based on ex-drivers' comments about transport patterns and problems. 'Serious' travel involves essential trips, such as shopping for food and attending medical appointments whereas 'discretionary' travel is taken solely for the purpose of enjoyment (Davey, 2004). When transportation is dependent on others, discretionary travel, which ex-drivers are more hesitant to ask for help with, is more likely to be given up. Perhaps this is because enjoyment alone does not seem a valid reason for asking for help with transportation (Davey, 2004). Liddle and colleagues identified a pattern in participant responses that revealed inconsistences between decision phase events and post-cessation recollections of the decision phase of driving; indicating a process of "owning the decision" to stop driving (Liddle et al., 2008, p. 383). Believing one had independently decided to give up driving, regardless of the actual extent of control, appeared important to ex-drivers (Liddle et al., 2008).

Driving cessation research findings show ex-drivers are a heterogeneous group, that there are a range of different subjective experiences for ex-drivers, not all are negative, and ex-drivers come to terms with and find new ways cope with driving cessation losses. But there is still relatively little known about positive post-driving cessation experiences or potential methods of coping. The aims of this exploratory study are to: identify and explore the subjective experiences of older adults who have

given up driving, including positive impacts and those that have not emerged in the previous research, and explain these findings in the light of research literature; identify and describe individuals' responses to post-cessation challenges; and collect relevant data to inform content and form of the interview questions to be used in subsequent studies in this research. Practical and psychological driving cessation experiences among males and females (n = 5) were explored; behavioural and psychological coping strategies were identified and explored, as were positive impacts of driving cessation; and, themes associated with, and responses to, driving cessation not previously identified were sought.

Due to the exploratory nature of this study, no hypotheses were formulated prior to data collection. The focus group discussion method of data collection was chosen because it is an effective way of collecting rich in-depth data. Participants are able to share personal experiences with members of the group and the group is able to discuss their different opinions (Knodel, 1995). What participants choose to talk about, knowing discussion time is limited, may highlight which issues are pertinent to older adults who no longer drive. Furthermore, there is the potential for participants' responses in this study to inform the content of the open-ended interview questions in a second study. Focus group discussion content may identify areas that could benefit from further exploration to obtain greater detail. Focus group topics that have not arisen in the previous research, such as additional positive impacts of driving cessation, may then be included in the next study. In addition, it is intended that focus group participants' responses in this study will inform the wording of the interview questions in Study Two: such that the words and phrases used in interview questions mirrors focus group responses, to enhance interview participants' understanding and minimise ambiguity of the questions.

3.3 Method

3.3.1 Participants

Eligibility requirements for this study were broad. Participants had to be individuals over the age of 65 years who had stopped driving for at least one month and would not drive again, who understood the study, and were willing and able to give informed consent to participate. Participants were recruited via senior's networks (e.g., Goodwin Aged Care Services across the ACT) to volunteer to take part in a focus group discussion. A single focus group with five participants was held at a location familiar and easily accessible to all volunteers. Participant demographic characteristics are displayed in Table 2. Participants' names have been changed to de-identify them. Participants were five older adults, four of whom were female, the mean age was 81 years (SD = 5.1). Of the three participants who were married, one participant had regular access to another driver (their spouse). All participants were residents of a retirement village, where residents live independently and, in the main, provide for their own care. Occasional transportation and regular social activities are facilitated.

Table 2

Demographic Characteristics of Participants in the Focus Group

Participant pseudonym	Gender	Age	Marital Status	Ready access to another driver
May	F	85	Married	Y
Phil	M	83	Married	N
Jane	F	82	Married	N
Mel	F	83	Widow	N
Bea	F	72	Widow	N

The timing and reasons for driving cessation differed between participants. Participants Bea and Jane stopped driving suddenly: Bea experienced a stroke leaving her unable to drive, and Jane lost her car in an accident. Participants Mel and May

stopped over a period of time: Mel believed her eyesight wasn't good enough to keep driving, while May didn't enjoy driving and lost confidence in her driving ability. Phil did not state whether he gave up driving suddenly or over a period of time. He stopped driving because his wife Jane drove and he believed she was a safer driver than him.

3.3.2 Procedure

Data were collected through a focus group discussion. Guidelines for group focused interviewing procedures (Merton & Kendall, 1946), research interviewing (Kvale, 1996), and Socratic questioning (Paul & Elder, 2007) were followed. Demographic information was gathered from each participant before the discussion to ensure eligibility. A short period of time prior to the discussion was spent on introductions and rapport building. Next, participants were invited to discuss any driving-cessation related issues that came to mind, and to describe their experiences of no longer being able to drive. Unstructured questions were asked during the early stages of the discussion. For example, 'what has giving up driving been like for you?' And, 'what do you remember most about giving up driving?' The following areas were explored:

- the nature and extent of the subjective experiences associated with driving cessation in later life, (i.e., what do people think and feel about no longer driving and what issues are important to them?);
- individuals' behavioural and psychological coping responses to the practical and emotional challenges of no longer driving; and,
- the nature and extent of any positive impacts of driving cessation.

Participant involvement in the discussion was encouraged by the facilitator to maximise the range of responses and maximise the detail of the information obtained. Participants were encouraged to draw on, describe in detail, and interpret their personal experiences,

and interact within the group. Participants were asked to respond to open-ended questions directly related to the issues they had raised, such as 'how did you feel about not being able to choose when you go shopping?' Probing questions were used to obtain more detail. For example, to learn that no longer driving is "horrible" was not considered sufficient information. The facilitator asked 'what it is about no longer driving that is horrible?' Also, the facilitator used targeted questioning to bring out the affective and value-laden implications in participant statements; for example, saying 'what was that like for you?' A simple grounding exercise was conducted at the conclusion of the discussion. Grounding exercises help to reduce emotional distress that may result from reflecting on past stressful events. The grounding exercise involved participants' focusing on five objects in the room to bring their attention back to the present moment. The focus group discussion was approximately one hour in length.

3.3.3 Treatment of Data

The focus group discussion was audio-recorded to ensure the existence of a complete record of all responses from participants. The recording was transcribed in its entirety, including participant responses and the interviewer's comments related to seeking participant feedback and clarifying understanding (see Appendix A: Focus Group Transcript). The transcribed discussion data (hereafter referred to as the text) was organised and examined for essential meaning and emerging themes. Lindseth and Norberg's (2004) phenomenological hermeneutic method of data analysis informed the interpretation of the text.

Phenomenology refers to the study of human experience without judging whether or not the experience has external validity; hermeneutics is an interpretive and explanatory method of analysing text where the text is read numerous times to come to

one, of possibly many, meanings (Lindseth & Norberg, 2004). Phenomenological hermeneutic analysis seeks to clarify the essential meaning of the lived experience presented in the text rather than describing or explaining the experiences of individuals. Description alone does not demonstrate an understanding of the subjective experience of no longer driving, (e.g., saying an individual who gives up driving becomes more dependent on family members and explaining that this dependence is likely to be a result of poor or inappropriate alternative means of transport is a lower level of qualitative analysis). Phenomenological hermeneutic analysis seeks to reveal what it is like for the individual to be more dependent on family members both through close examination of the text and in light of literature in the field.

The phenomenological hermeneutic analytic method was considered the best choice of method for use in this study because of its suitability for exploring a single phenomenon. An alternative subjectivist analytic method was considered, the narrative approach (which is used to explore chronically connected events that have occurred in people's lives, Khan, 2014), and rejected on the basis that the objective of the present study is to gain a deeper understanding of a single phenomenon, driving cessation, rather than ex-drivers' lives.

This study follows the three methodological steps described in Lindseth and Norberg's (2004) phenomenological hermeneutic method: (i) Naïve reading, (ii) Structural analysis, and (iii) Comprehensive understanding. Figure 3 illustrates the details of each step.

3.3.3.1 Step One, Naïve Reading

The text was read several times to reach an understanding of its overall meaning. While reading the text the researcher formulated an understanding of the experiences participants discussed. The understanding of the text was written down as conjecture to

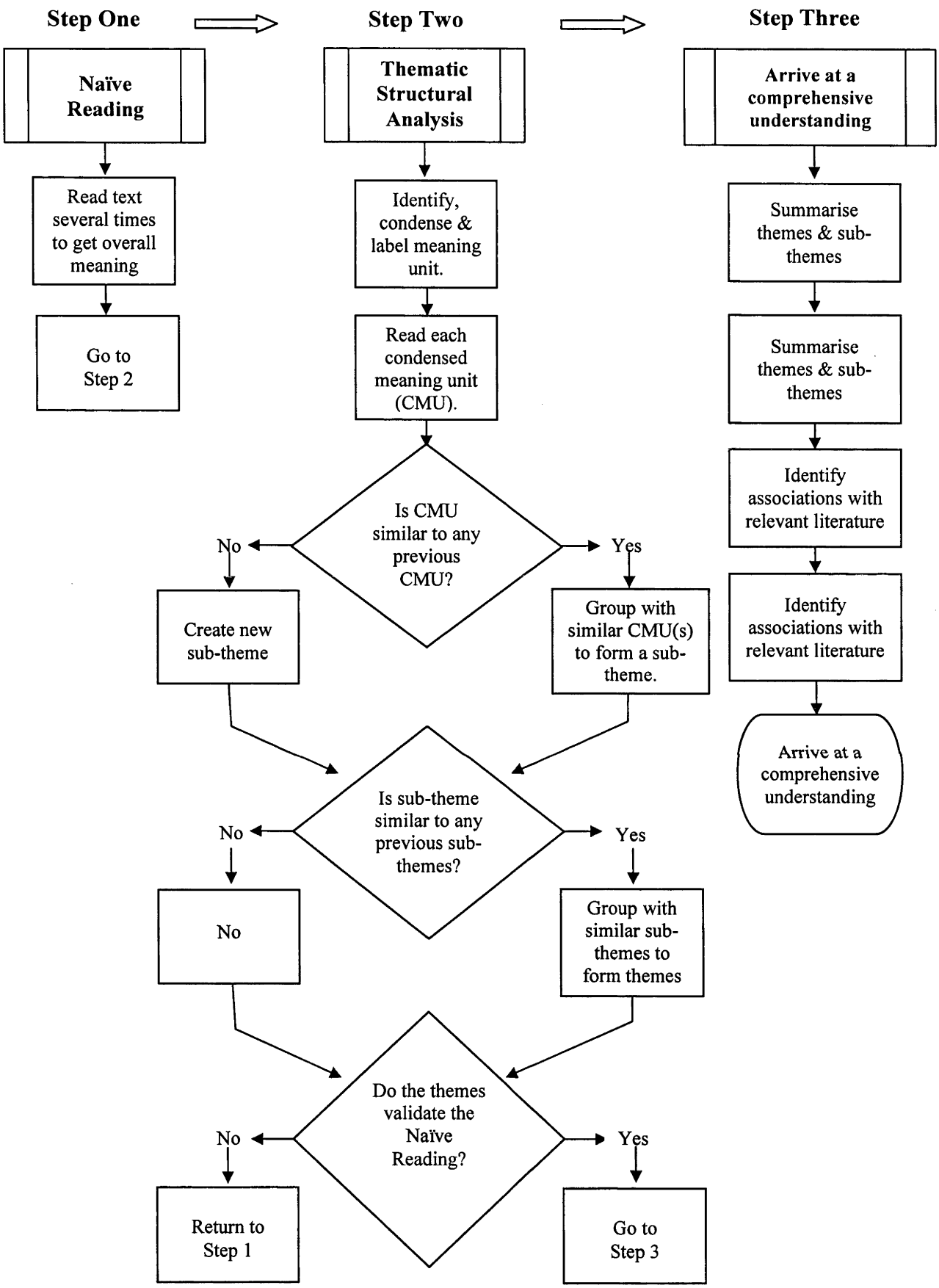

Figure 3. Representation of Lindseth and Norberg's (2004) phenomenological hermeneutic metho

be validated or invalidated by the next step; Thematic structural analysis. For example, the naïve reading infers some good experiences come from no longer driving. Thematic structural analysis, the second and more detailed step of analysis, identifies themes, such as 'personal growth' in the text, and when the themes convey the same meaning and are not contradictory to the naïve reading, it indicates that the naïve reading presents a valid, albeit broad understanding of the text.

3.3.3.2 Step Two, Thematic Structural Analysis

Structural analyses are methods of analysing structures in order to interpret them and, in some instances, make predictions about them. In the present study this involved identifying and formulating themes that convey essential meanings of a lived experience. This was achieved by dividing up the text into units of meaning. Each meaning unit consisted of one or more sentences or part of a sentence that conveyed just one meaning. Each meaning unit was condensed and labelled as concisely as possible, (e.g., a meaning unit "*It's [no longer driving] taught me patience*" was condensed into 'Learnt patience').

Each condensed meaning unit (CMU) was compared with other CMUs looking for similarities and differences. If a CMU was similar to another CMU they were grouped together to form a sub-theme. Continuing with the example above, 'It's taught me patience' was grouped with 'That's right. [through acceptance] I mean you grow' to form a sub-theme 'Personal growth'. If a CMU was not similar to any other CMU it stood alone. Sub-themes were then compared for their similarities and differences and similar sub-themes were grouped together to form themes. In the same way, themes were then grouped to form main themes.

The question was then asked whether the themes and main themes identified from the structural analysis were consistent with themes identified in the Naïve reading. If the themes identified from the structural analysis were inconsistent with or

contradicted those identified in the Naïve reading, the analysis began again from the beginning of step one. Only after the Naïve reading was considered valid did work begin on the third step. Because both Step One and Step Two in the analysis were performed by the same individual, the primary researcher was watchful for potential bias.

3.3.3.3 Step Three, Comprehensive Understanding

The three levels of themes: 'main themes', 'themes', and 'sub-themes' were summarised and examined in relation to the research question and the context of the study (i.e., older adults' experiences of giving up driving). The text was read again as a whole with the validated Naïve reading and each level of themes in mind. Numerous discussions with colleagues were held to identify and challenge bias and assumptions made by the primary researcher. An exploration of research literature, not necessarily related to giving up driving, was conducted to revise, widen and deepen understanding of the themes within the text. For example, to better understand participants' experience of losing their independence the researcher turned to research detailing western societies' beliefs and attitudes towards independence. Finally, the text was interpreted as a whole to arrive at a comprehensive understanding.

3.4 Findings

3.4.1 Naïve Reading

The content of the focus group discussion falls into three distinct yet interrelated areas. These are now briefly described (see Appendix B: Naïve Reading, for the full copy of the validated Naïve Reading). (a) Individuals stop driving for many different reasons. Age may influence the timing. The level of involvement in the decision to give up driving varies. Events that occur simultaneously with giving up driving may overshadow/lessen the attention paid to and/or the importance of giving up. (b) Driving equates to feeling free and independent. There is comfort and convenience in driving, but also stress. (c) Post-cessation, sense of relief and less worry are experienced. Getting about is more challenging, opportunities to interact in, and with, the world seem limited. Regret, irritation, and/or sadness may be experienced. There are financial gains. Those who live in retirement villages may have a different experience of no longer driving to non-retirement village residents. (d) Individuals make lifestyle changes to adapt to life without a car. Activities tend to be given up. Arrangements are made to avoid having to travel. Other ways of getting about are adopted. Family members, friends or acquaintances provide transport; this may be experienced as inconvenient and often elicits a sense of dependence and/or being a burden. Psychological coping is evident in participants' acceptance of post-cessation circumstances and compromise.

Combined, these four areas constitute the naïve understanding of the text.

3.4.2 Thematic Structural Analysis

Fifteen themes were identified through thematic structural analysis of the text. Some examples are: reasons for driving cessation, being the driver, emotional distress,

and minimising inconvenience. The themes with accompanying sub-themes, which were organised into main themes according to how they might relate to each other, are displayed in Table 3. The results are presented as a distilled account of the phenomenon in question, in accordance with phenomenological research conventions (for the full results see Appendix C: Thematic Structural Analysis Results). Of the four main themes, the bulk of the focus group discussion covered the impacts of giving up driving and behaviours geared towards coping. The main themes set out in chronological order are: pre-driving cessation, impact of driving cessation, and reaction(s) to impact(s). The main themes correspond closely to the four topic areas in the Naïve Reading. This close correspondence between the themes identified through thematic structural analysis, and the naïve understanding of the data validates the Naïve reading.

The themes, which were combined to constitute the main themes, reveal more detail. Some of the reasons for giving up driving include declining health, loss of confidence, and the influence of others. Post-cessation, various themes such as independence, participation in life, and emotional distress emerged. Sub-themes revealed loss of independence, fewer opportunities to visit family and friends, regret, frustration and sadness. Negative impacts tended to be focused around the inconvenience of alternative modes of transport and accompanying frustrations. Positive impacts emerged. These tended to be focused on enjoyment, relief at no longer having to drive, financial gains and personal growth. Numerous sub-themes make up the main theme of coping, some of which may be grouped into behavioural strategies, such as use of alternative modes of transportation and planning ahead, and some of which may be grouped into psychological strategies, such as acceptance, compromise, and focusing on the present moment. Coping, while adaptive, sometimes had its downside, such as sense of burden. Some participants talked about the importance of independence and the benefits of living in a retirement village. Finally, it appears some

losses, which may easily be attributed to driving cessation, may result from concurrent lifestyle changes that may or may not be associated with driving cessation per se.

Table 3

Thematic structural analysis: Main themes, themes and sub-themes

Main Theme(s)	Themes	Sub-Theme(s)
Pre-Driving Cessation	Reasons for Driving Cessation	Creating a narrative, Health decline, Psychological, Ageing Safety, Loss of car, Others' influence
	Being the Driver	Spontaneity, Necessity, Hassle, Autonomy
	Anticipating cessation	Thinking about cessation
Impacts of Driving Cessation	Independence	Loss of independence, Nature of independence
	Participation in life	Social activities, Change in participation
	Emotional distress	Discomfort, Regret, Frustration, Sadness, and Irritability
	Inconvenience	Physical discomfort, Waiting, and Slower
	Positives	Enjoyment, Relief, Financial and Personal growth
Coping	Alternative transport	Lifts, Public/community, Independent means
	Minimising inconvenience	Swopping services, Planning, Hurrying
	Self-adjustment	Substituting other activities, Slow change, Distraction, Acceptance, Compromise, Present moment focus
	Co-benefits	Other driver, Retirement village living
	Downside	Burden, Aversion
	Limits	Lack of knowledge, Restrictions to family giving support
Not Cessation per se.	Changes	Concurrent losses effect participation in life, Circumstances other than driving cessation effect relations with others

3.4.3 Comprehensive Understanding

Building on the Naïve reading and the Thematic structural analysis, through discourse with colleagues and research literature on loss, independence, coping, and personal growth, a Comprehensive understanding of the text emerged.

3.4.3.1 Loss

Sense of loss dominated the focus group discussion in this study, however not all losses could be attributed to driving cessation alone. Most of the losses were intangible, rather than tangible. Participants spoke about loss of independence and the spontaneity, convenience, and freedom driving oneself affords. There was some loss of contact and intimacy with friends and family. And, there was the loss of old habits and preferences, such as the continental way of shopping daily for groceries. Participants discussed their losses in the context of the decision phase of driving; this is consistent with another focus group study, which explored perspectives on driving cessation, but where participants were prompted to talk about each phase of driving (Adler & Rottunda, 2006). Participants in the current study constructed a narrative beginning with the decision phase of driving and ending with current post-cessation experiences, each loss event experienced was linked with another in a chain of events. Individuals often think of their losses in terms of a narrative that places major events into the context of their lives (Harvey & Miller, 1998). Phil, the first to speak, responded to the facilitator's invitation to participants to talk about what life was like when they could no longer drive saying "There is another question as well; you didn't ask why did you give up driving?" and Jane began to explain how she came to give it up. When May interrupted Jane, Phil became defensive and continued Jane's story, the discussion went as follows:

> [Jane] I had a car but you know I had a car accident and my daughter said "mum you shouldn't drive a car any more you're 80" well 82, 81.

[May] Age has got nothing to do with it.

[Jane] Oh I think so.

[May] No.

[Phil] Well now she wants to tell when she stopped driving. That was that time that's two years ago.

Telling her story of losing her car in an accident and the subsequent "horrible" experiences of no longer being able to drive, Jane positions her no longer driving losses in the context of how she came to stop driving. Phil's statement makes explicit Jane is telling a story and both Phil and Jane's dialogue demonstrate the giving up experience continues to be at the forefront of their minds. It may be that inferred knowledge of driving-cessation circumstances is important for an understanding of what it is like to no longer drive.

Data analysis identified potential links between post-cessation experiences of no longer driving and the timing of giving up driving. Whether an individual stops driving suddenly or over a period of time may shape experiences and influence the intensity with which losses are experienced. Comparing Jane with Mel, the data reveals stopping driving suddenly and failing to plan for the event may lead to a more negative driving cessation experience. Jane stopped driving suddenly and laments having given up, stating a number of times how she wished she still drove, she said "[giving up driving was] horrible ... I wish I had my car ... When I gave up driving I was very cranky, very moody". Mel, in contrast, gave up driving over a period of three months and planned for life without her car; she reported negative emotions were experienced, "[not for] any length of time but occasionally I'd think 'oh'. It was so temporary ... It was infuriating for a few minutes." This indicates Mel, perhaps with the benefit of time, was able to accept she could no longer drive and find ways of coping without a car, so that no longer driving was experienced less negatively compared to Jane.

Data analysis also identified a possible link between post-cessation experiences of no longer driving and the events leading to driving cessation. Experiencing multiple sequential or concurrent losses around the time of driving-cessation may shape driving cessation experiences. Comparing Jane with Bea, both of whom stopped driving suddenly, Jane bemoans no longer driving while Bea does not. Research suggests individuals who experience multiple losses over a relatively short period of time experience each individual loss differently than if one of those losses is experienced in relative isolation (Harvey & Miller, 1998). Bea experienced a stroke, which meant she could no longer perform many activities of daily living such as walking or driving a car. Stroke survivors often experience cognitive deficits (Tatemichi et al., 1994), motor impairment, and depression (Sinyor et al., 1986), which effect the individual's ability to drive. Onset is sudden and subsequent impairments may be short lived, recovery occurring during the three months post-stroke (Kelly-Hayes et al., 1989), during which time the stroke survivor may resume driving (Legh-Smith et al., 1986). When the events leading to driving cessation are a consequence of a stroke, there are multiple losses that are sudden, such that the individual may not appreciate the significance of no longer being able to drive, unexpected and forced upon the ex-driver with the duration of cessation uncertain (Liddle et al., 2009). For Bea post-stroke complications possibly overshadowed and drew her attention away from no longer being able to drive. Bea makes a distinction between relatively minor post-stroke losses, such as no longer being able to drive, and major losses, such as no longer being able to self-care independently. In contrast, Jane continues to enjoy relatively good health and support from her husband, in the absence of other losses her focus is drawn towards the loss of her car, such that no longer driving in isolation is experienced as a major loss.

Coping with the consequences of giving up driving will be discussed in detail below. However, it is relevant to point out at this time that many of the coping

strategies Bea adopted to manage the impacts of the stroke had co-benefits for managing the impacts of no longer driving. Bea's stroke and subsequent decline in health allowed her access to community transport (i.e., a transport service provided by community and/or seniors' centres that provided for essential travel needs) that Jane was not entitled to. Furthermore, because Bea could not walk far after her stroke she began using an electric scooter, which replaced the need to drive a car. It seems likely that these alternative means of transport moderated the impacts of no longer driving, which may also explain why she reported fewer losses associated with no longer driving and the losses she reported were experienced at lower intensity than Jane.

The intensity of loss associated with no longer having access to a car is determined by the amount of emotional investment placed on having a car (Harvey & Miller, 1998). Among focus group participants there was no indication that any emotional investment had been placed on the car per se. Rather, emotional investment was placed on goals that having a car enabled individuals to attain. Logically, the intensity of loss associated with goals that cannot be attained will be determined by the value placed on the goal. Independence was afforded high importance by four out of the five focus group participants and its loss was keenly felt by these individuals.

3.4.3.2 Loss of independence

Jane stated emphatically "We have to be independent" and Mel said "it [no longer driving] does take your independence away which of course is a big thing." In western societies, independence is highly valued and perhaps because of this a loss of independence is seen as problematic (Cordingley & Webb, 1997). The most common conceptualisation of independence is the absence or avoidance of reliance on others, specifically reliance on others to carry out everyday activities (Secker, Hill, Villeneau, & Parkman, 2003). In this sense, independence is the extent to which dependence is absent. More specifically, independence involves: (i) being able to look after one self,

(i.e., not being dependent on others); (ii) the capacity for self-direction and the freedom to make choices about one's own actions; and, (iii) the absence of feeling obligated to others (Sixsmith, 1986). These are now discussed.

Addressing the first point, all focus group participants reside in Independent Living Units (ILU), which by their nature accommodate individuals or couples who are able to look after themselves without external assistance. In this sense participants in the current study are considered, on the whole, to be independent. However, if being able to look after one self without external assistance includes being able to go grocery shopping then one can start to understand how Mel, who said "I find the most important thing is not being able to go grocery shopping unless I rely on somebody to take me", subjectively experiences a loss of independence.

The second theme of independence - the capacity for self-direction and the freedom to make choices about one's own actions (Sixsmith, 1986) - essentially captures the concept of autonomy, which involves acting from one's own interest and integrated values (Deci & Ryan, 2000a). Participants' comments in this study indicate driving supports autonomy and no longer being able to drive limits it: Mel said "[when you drive] you can jump into your car any time you like really" and May followed with "You can come and go as you please". When driving is no longer an option, "I have to depend on the availability of my sons", said Bea, and Mel explains "we go [shopping] on a certain day which suits Joan and actually that day doesn't suit me at all ... We're continental people we don't shop once a week we shop very often." These participants are no longer free to choose when, how often or where they travel. However, May makes an important point; she says no longer driving need not result in a loss of independence per se. She states "I think we rate independence too highly. We have to be independent and it's not necessarily so ... You don't lose your freedom by losing some of your independence." May has made a distinction between independence in

terms of being able to look after one self without being dependent on others and independence in terms of autonomy. May chooses to utilise alternative transport and social activities to maintain pre-cessation out-of-home activity: her husband still drives, the retirement village provides transport, and village staff and residents organise social events. When alternative strategies are found to maintain or resume valued activities independence need not be lost (Buys & Carpenter, 2002a). Further, May is accepting of her reliance on others. Perhaps, if individuals freely depend on others they may not feel a loss of independence. There are, after all, always limits to independence; individuals accept being dependent on others for goods and services, such as food and energy, every day.

The third theme, the absence of feeling obligated to others (Sixsmith, 1986), also emerged in the current study. Participants described accepting lifts from others and beliefs about the sense of burden or nuisance this places on the lift provider, feeling obligated to them, and feeling guilty and duty bound to minimise or make amends for the perceived inconvenience. Bea believes being taken clothes shopping places a burden on her sons because "there's an awful lot of difference between the types of shopping they'll tolerate". May thinks accepting lifts "puts the onus on that other person, not to be at my beck and call". Mel feels "I shouldn't take Joan's, more time than I really need ... I feel I impose on people when I take a ride from them". And, Jane commented "she [her daughter] doesn't have much time either", both indicating the burden of time pressures. Each participant sees themselves as dependent on, and a burden to, the lift provider.

Self-perceived burden is, "a multidimensional construct arising from the care-recipient's feelings of dependence" (Cousineau, McDowell, Hotz, & Hébert, 2003, p. 111). There is a paucity of research investigating older adults' experiences of self-perceived burden, what research there is suggests the experience includes frustration

and worry leading to feelings of guilt (Cousineau et al., 2003). The experience of being a burden can be understood in terms of: concern for others, specifically the physical burden that is placed on carers when individuals accept practical assistance; and, social burdens, that is, the extra stress providing assistance places on carers when the carer is perceived as already being time and/or energy poor (McPherson, Wilson, & Murray, 2007). While the research investigating older adults' experiences of self-perceived burden focuses almost exclusively on individuals receiving care at the end of life (McPherson et al., 2007; Wilson, Curran, & McPherson, 2005) or on individuals with chronic illnesses (Cousineau et al., 2003) parallels may be drawn with ex-drivers' receiving support with no longer driving: concern for others and social burdens, such as when the carer is perceived as already being time and/or energy poor, is reflected in the participant comments cited above. Self-perceived burden is associated with poorer well-being when a loss of control and loss of dignity and hopelessness are experienced (Wilson et al., 2005).

Various methods were employed to avoid or minimise feelings of burden, these generally involved minimising the impact on the person providing the lift. May uses organisational and planning strategies. She said,

> if I want to go somewhere I have to consider it and think: can I do two or three things at once so that I don't have to ask to be taken somewhere else and I try not to. I try to do things so that we do them together.

Furthermore, she makes shopping lists of what she "needs to get and I get it. I don't sort of think oh I might go down there [to browse]." Similarly, Mel said "[I'm] as quick as I can with my business." Coping strategies will be discussed in greater depth below (see section 3.4.3.5).

The concept of environmental press (Lawton, 1985) and reciprocity (Gouldner, 1960), as it relates to ex-drivers' experience of sense of burden to lift providers, may

further explain why ex-drivers are reluctant to accept lifts from others and have negative perceptions of accepting lifts. With changing circumstances post-cessation, the balance between autonomous and support-seeking behaviours changes as ex-drivers come to rely on others for transportation. As support needs are met autonomy is often relinquished (cf. Lawton, 1985), leading to a lower sense of well-being (Ryan, 2009). Reciprocity, variously defined as "returning a kindness" and "a mutually contingent exchange of benefits", which occurs when "one party gives something more or less than that received" (Gouldner, 1960, pp. 161-164) (p. 164), is a social norm. The support provider may not expect to have a favour returned; yet the support receiver often thinks it is their duty to do so. This sense of duty is experienced as a burden when personal and/or environmental circumstances prevent reciprocity that is more or at least equal to that received. Ex-drivers who accept a lift are not able to return the kindness. Instead they may seek to mitigate the perceived inconvenience caused by accepting lifts at a time that is convenient to the lift provider and being as quick as they can (see discussion above).

3.4.3.3 Participating in life

Many older adults remain actively involved in a wide variety of activities (Bennett, 1998). Older adults maintain stability, in terms of engagement in leisure activities, through old and familiar leisure activities (Iso-Ahola, Jackson, & Dunn, 1994). With advancing age, declining health and physical capacity, or the death of a spouse (reflecting changes in ability, opportunity, or need/preferences) may force a decline in the frequency of activity and a shift in the sorts of activities individuals participate in (Armstrong & Morgan, 1998; Strain, Grabusic, Searle, & Dunn, 2002). Out-of-home activity levels tend to decline and the greatest declines occur where participation levels have been highest to start with (Iso-Ahola et al., 1994; Verbrugge, Gruber-Baldini, & Fozard, 1996). Giving up driving may also impose certain

constraints on an individual which results in a reduction in mobility (Burkhardt, 1999) leading to decreased out-of-home activity (Marottoli et al., 2000).

The focus group text reveals a complex picture: there is variability between individuals and across activities with regards to changes in levels of participation, and in-home activity levels may increase. There is evidence giving up driving negatively impacted level of participation in both essential (e.g., grocery shopping) and discretionary (e.g., attending social events) activities; with those who used to shop daily only being able to shop weekly and those who used to go out in the evening restricted to day-time social events. The frequency of Phil's participation in some activities has declined since giving up driving and some activities have been given up altogether; his current level of participation is lower than he would like. He said "When we want to go to a show or want to go to, what is it called? [sic], we can't go ... because it is too far away." However, the text also indicated finding other modes of transport has enabled these participants to continue to participate in valued out-of-home pastimes. May, in contrast, has maintained her level of participation in out-of-home activities since giving up driving and reported that participation in at-home activities has increased:

> [May] Some [activities] are different and some are the same.
>
> [Facilitator] Could you tell me a bit about that?
>
> [May] Well, we go, we go throw things in the car and go for a picnic; we still do that we always do that, and we go walking. We're always walking and we go round visiting people all around the place. I come down here [meeting/activity room] too often [laughs]...
>
> *[Facilitator] Too often?*

> [May] Sometimes it feels like that. [Husband's name] and I have always done things together and always done things separately. So we still do them. Usually things involving the church there's somebody round from church who'll pick me up if I want to be picked up and that doesn't make any difference.

and,

> [May] Probably I do more.
>
> [Facilitator] You do more now?
>
> [May] Probably.
>
> [Facilitator] Probably? Why do you think that might be?
>
> [May] Well, I'm at home more."

Similarly, Bea "just substituted other activities", indicating that levels of participation in some areas had ceased altogether and participation in other areas had increased or been initiated. Night-time social activities may be at greater risk of being lost than day-time activities. Bea uses an electric scooter as her main form of transport during the day but she is not comfortable using it outside of the retirement village after dark. She reported:

> I'd like to go to at night-time. I feel as if I'd like to keep in touch more with the people I knew before. Some were still working and they were only available at night time ... you know and a lot of the social activities associated with [the seniors' club] are at night-time.

As a result of giving up driving Bea is not able to attend night time leisure activities and as a consequence she has seen friends less often and has lost touch with some.

3.4.3.4. Social contact

Many activities reportedly given up by focus group participants, such as dining out, church activities, going to the theatre/movies and seniors' clubs, are intrinsically

social activities. Reduction in number of social activities and loss of intimacy were experienced and perceived negatively. There may be a link between these losses and giving up driving. No longer driving may present a barrier to participating in existing social activities and intimacy fostering activities such that the roles and social connections associated with them changed or were broken. Bea reported having experienced fewer social activities and less contact with family and friends, which seems to have changed her view of herself. It is participation in activities with others that provides the opportunity for individuals to experience self-concept reaffirming role-support (Lemon, Bengtson, & Peterson, 1972). Bea no longer sees herself as an 'involved grandmother': most likely because lack of contact with her grandchildren means she gets less reinforcement for the maintenance of the positive self-concept of involved grandmother. Reduced frequency of contact with her grandchildren seems also to have contributed to a decline in intimacy in her relations with them.

Socio-emotional selectivity theory suggests social contact may satisfy two needs: information seeking (a long term goal) and emotion regulation (Carstensen, 1992; Carstensen et al., 2003; Carstensen et al., 1999; Carstensen & Turk-Charles, 1994). Emotional regulation leads to maintaining intimacy, feeling good, and gaining emotional meaning from life. When future time is limited, such as in older age, individuals are motivated more towards social interactions that meet the need for emotional regulation than social interactions that facilitate information gathering. Older adults, irrespective of driving status or the availability of public transport, likely choose to decrease social contact that does not promote a positive emotional climate, which may lead to an overall reduction in the size of social networks. Therefore, socio-emotional selectivity theory may in part explain a reduction in the breadth of social activities undertaken by older adults that is independent of changes resulting from driving cessation.

In accordance with socio-emotional selectivity theory, as close social relations become increasingly important for emotional wellbeing in later life, the extent to which not driving restricts access to key relationships, for example Bea's access to and relationship with her grandchildren, one would expect cessation to have a negative impact on emotional wellbeing. This aligns with the hypothesised role of Self-Determination Theory and the need of relatedness in the conceptual model discussed in the previous chapter. Intimacy is a core component of one's sense of relatedness, an essential psychological need related to well-being (Deci & Ryan, 2000a). Identifying whether there is a link between driving status, loss of contact with friends and family, and a loss of sense of relatedness would help researchers better understand the relationship between driving cessation and well-being.

In contrast, Jane has fewer interactions with family members and friends now that she no longer drives but states this has not altered those relationships despite her sometimes feeling "empty". The remaining participants stated that no-longer driving has made little difference to the frequency with which they see family members or the relationships they have with them; possibly because their relatives live overseas (in the case of Phil) or their relatives live interstate and they would not drive those distances now even if they were still driving.

The text, however, also reveals another explanation for participants experiencing fewer social activities and less contact with family that is not linked directly to driving cessation. Bea and May's lack of contact with their grandchildren may be due to their grandchildren's busy lifestyle. May stated "your grandchildren grow further away from you. All our grandchildren live in Canberra, but we don't see them, not very often. They're too busy" and Bea said "They're involved in things after school. The kids have a marvellous social life these days. They're always at sleepovers or parties or whatever at weekends, or going to sports or whatever." There is no clear evidence to suggest that

these two participants would spend any more time with their grandchildren if were still able to drive. In sum, driving cessation may represent just one of several barriers to activities supporting important social relationships in later life.

3.4.3.5 Coping

Driving cessation research suggests giving up driving is associated with depressive symptoms, such as persistent low mood (Fonda et al., 2001; Marottoli et al., 1997; Ragland et al., 2005). None of the focus group participants reported any lasting downturn in mood after giving up driving despite experiencing losses. Mel stated she would occasionally think "oh, and feel "infuriat[ed] for a few minutes" but that "it was so temporary". Phil said "about mood; when it is bad weather and I have to wait for the bus too long then I might get cranky but that is mood by the day no long [sic]" indicating he feels bad tempered when he has to wait for a bus on cold and wet days but that the bad mood does not linger. Jane stated she sometimes wishes she still has her car "when it's rainy or windy" and that "I was very cranky, very moody. But still you get over it. It's so very long ago now [2.5 years]. Get the bus and the taxis". And, Bea reported no change in mood as a result of giving up driving. The apparent absence of enduring low mood post-driving cessation may be due, in some part, to participants' use of coping strategies.

The body of literature concerned with 'coping and adapting to change' is decades old and there are now dozens of models that can be applied to help our understanding of how and why individuals deal with stressors. Ways of dealing with the various challenges arising from no-longer driving can be categorised in many different ways, for example: problem focused and emotion focused (Billings & Moos, 1981); alleviating distress and solving problematic conditions (Larzarus & Folkman, 1984); approach and avoidance (Roth & Cohen, 1986); selection, optimisation and compensation (P. B. Baltes, 1987); primary and secondary control (Heckhausen &

Schulz, 1995); and, assimilative and accommodative processes (Brandtstädter & Greve, 1994; Brandtstädter & Renner, 1990a; Brandtstädter & Rothermund, 2002). There is considerable conceptual overlap between several of these theories (Boerner & Jopp, 2007a; Riediger & Ebner, 2007). Theories of coping are often limited to classifying people into coping styles or categories in order to make predictions about future ways of coping with stressful encounters (Larzarus & Folkman, 1984). The analysis of the focus group discussion, in this study, does not seek to identify common coping styles to make predictions. Rather, what follows is a description of the idiographic coping styles reported by the focus group participants.

There is a high degree of similarity between the participants in this study and those in other studies in terms of the methods they employed to deal with the challenges of no longer driving. Previous studies have categorised coping in terms of 'Finding Other Ways' and sub-divided coping methods into two groups (use of informal resources, such as friends and family, and formal support, such as community or government programs) (Bonnel, 1999a) or captured aspects of coping in themes, such as changes in lifestyle, reliance on others for transportation, and use of alternative transportation (M. J. Bauer, Rottunda, et al., 2003). In essence, all of the ways of coping outlined in the extant driving cessation research involve taking direct action to deal with problems associated with no longer driving, to make an unfavourable situation more favourable.

In the present study, focus group participants adopted ways of coping that sought to change various unfavourable driving cessation situations into more favourable ones, such as changing the way they did things. For example, when driving was no longer an option, some individuals used other means of transportation, changed shopping habits, and found alternative activities to take part in that did not require driving. Focus group participants also adopted ways of coping that involved taking a more psychological

approach, such as changing the way they thought about things. For example: some participants who could not find other means to achieve valued goals accepted, compromised, and devalued unachievable goals. The text reveals a complex interplay between strategies aimed at changing unfavourable conditions and psychological strategies.

Where possible, participants found other means of getting about. All participants relied on others for transportation, this usually involved taking lifts from family and friends. Two participants reported using alternative personal modes of transport, such as an electric scooter, a third participant owns an electric scooter but chooses to walk the shorter distances while she is still able and uses other means of transport for longer journeys. Participants who have poorer physical health have access to, and use, community services transport. All participants reported using public transport such as buses and taxis.

Participants talked about making lifestyle changes. Participants tend to use shops and services on a bus route or closer to home when they had not done so before. Phil and Jane use a trolley to get their shopping home on the bus or in a taxi. Shopping, previously done daily, is now done weekly. Participants shop by lists and plan ahead. Phil and May take a book out with them to read while waiting for buses and taxis so as to not waste time. Maintaining social contact is done over the phone, on the internet, or via cards and letters instead of face-to-face. May said she tries to do things that she and her husband (who still drives) can do together.

As in previous research (cf. Buys & Carpenter, 2002b), focus group participants comments conveyed acceptance about no longer being able to drive. May stated "you have to accept the fact that you can't do it [drive] any longer. And then you can alter your, what you do accordingly." This is in keeping with the perception that acceptance comes first and may be necessary before ex-drivers can go about the task of coping with

no longer driving. It may be those who have not accepted that they can no longer drive are those who struggle most to cope with driving cessation. Similarly, when finding other means of transportation and/or making lifestyle changes are either not possible or the costs of doing so are high, focus group participants talked about accepting that there are things they can no longer do when driving oneself is not an option. Previously valued activities and places once visited, now inaccessible or too expensive to get to, are given up. While some activities are sorely missed, other previously valued activities are de-valued and are substituted with other activities accessible only to these ILU residents that have become more highly valued and appreciated. May said "I certainly appreciate the activities here" that are organised by the retirement village. Mel agreed "We're fortunate here" and Bea added "I must admit that I am very fortunate." By relinquishing the pursuits/goals that are no longer attainable, these ex-drivers have been able to shift their energies towards achieving what is possible. This psychological coping strategy used by focus group participants appears to have enabled them to achieve some balance between the gains and losses associated with driving cessation. New activities reportedly replace old activities and, in at least one case, effective coping led to positive personal growth, (i.e., acceptance and patience).

3.4.3.6 Positive impacts of giving up driving

The identification and exploration of personal growth as a positive outcome of the experience of giving up driving provides a unique contribution to understanding the driving cessation experience. Mel reported experiencing personal growth as a result of becoming more reliant on others to get her from A to B. She stated she has learnt patience and acceptance, "I mean you have to take each part of your life as it comes. I mean you grow." Personal growth refers to myriad positive changes individuals' experience throughout life. Positive changes experienced following stressful experiences are referred to as stress-related personal growth (Kesimci, Göral, &

Gençöz, 2005; O'Leary, 1998; Park, 1998). Positive changes can be experienced in various domains, such as coping skills, relationships, values and goals (Park, 1998).

Research encompassing driving cessation indicates stopping driving leads to distress that likely adversely affects the individual who gives up driving (Fonda et al., 2001; Marottoli et al., 1997; Ragland et al., 2005). However, some individuals seem to avoid harm or are minimally affected by what appear to be obviously adverse stressors (Pearlin, 1991). In some cases, individuals experience positive outcomes or growth after exposure to stressors (Park, 1998). The notion that positive change can come from pain and suffering is well recognised. Rogers (1956), states that personal growth shifts from potential to actual growth under suitable psychological conditions (Rogers, 1956). The right climate for change and personal growth often occurs when fundamental assumptions are challenged by life events (Tedeschi & Calhoun, 2004).

Personal disposition may affect stress-related personal growth (Park, 1998). Thus far, research has only identified a small number of personal characteristics related to stress-related growth including optimism and hope. Mel said "I went into great detail about scooters and walkers and things so that when the time came I was I think fairly ready [to give up driving]". She had the expectation that planning for giving up would result in a more positive outcome and she believed in her ability to deal with life without a car, she said "I'm pretty pragmatic sort of person". Expecting positive outcomes and believing in ones' own abilities are characteristics of optimism and hope (Park, 1998).

In addition to personal growth, giving up driving was found to lead to increased positive emotion and reduced negative emotion; as reported by Jane and May, respectively. As the only driver in the household for a number of years Jane had to drive herself and her husband around; since giving up driving she reported she is able to enjoy being the passenger, she said "it's easy to look around now. Because I was the

driver see and you see things now what [sic] before you didn't look at it, where you had to drive." Jane's experience of being a passenger allows her the opportunity and the freedom to direct her attention to the wider world around her. May's negative experiences of driving ceased when she stopped driving. As the driver, finding and getting into parking spaces was challenging and frustrating. She stated, "I only drove because I had to. It was, like people love to get in the car and drive. No, the car gets me from A-B." When asked if it was a relief to give up she replied, "Yes. Yes I suppose it was. I don't have to think about where I'm going to park. Parking's a dam jolly hassle. Thinking, where on earth will I park" and "I can't back." May's negative experience of driving mirrors her positive experience of catching the bus. She explained "It's great. I didn't have to think where to park, you don't have to think where you're going, you don't have to worry about the traffic, you just sit on the bus and you take it." Overall, May reported little to no negative outcomes associated with giving up driving. Factors likely explaining May's positive experiences of no longer driving include ready access to private transportation, positive public transport experiences, not rating of independence highly, and maintenance of participation levels in leisure and social activities.

Often, giving up driving includes giving up car ownership. Three participants, Phil, Jane and Bea, talked about the financial benefits of not owning a car. Phil said "Oh yes, it is cheaper without the car" Jane continued "Registration, tyres and all that you know. It is cheaper." Phil and Jane are now able to save money to spend on holidays, which they enjoy. Bea concurred "There is a financial advantage." Mel was unsure whether there were financial benefits. She stated, "I haven't thought about it in those terms. I don't think so actually. Apart from the financial aspects and the costs of the car, I can't think [of any benefits]." May's husband continues to drive, the couple still own a car, and thus May's giving up driving has not lead to financial benefits. The

financial benefits of no longer owning a car, while positive, probably contribute little to ex-drivers sense of well-being. Once necessities have been afforded, having more money is only slightly related to greater happiness and the effect is not long lasting (Myers & Diener, 1995).

In summary, sense of loss was explored in the focus group discussion. In discussing their experiences of no longer driving participants formed a narrative, placing driving cessation into the context of the decision and post-cessation phases of driving. Possible links between the timing of, and the events leading to, driving cessation and post-cessation experiences were identified. Stopping driving over a period of weeks or months allows time to accept that one can no longer drive and adapt to life without a car by finding ways to cope. Experiencing multiple concurrent losses around the time of driving-cessation may overshadow the driving cessation experience. The intensity of loss associated with no longer driving could be determined by the amount of emotional investment placed on goals that having a car enabled individuals to attain. Independence was highly valued among participants and its loss was keenly felt. Loss of independence was experienced when the individual was not able to: go shopping on their own; choose when, where, or how often to travel; or travel without feeling burdensome to or obligated to others. Giving up driving impacted participation levels in essential and discretionary activities; some activities declined while some new activities were initiated. When relinquished activities were substituted with new out-of- or within-home activities overall levels of participation in out-of-home activity was maintained and levels of within-home activity increased.

Many of the activities reportedly given up by focus group participants were intrinsically social activities. The loss of social activities presented a barrier to maintaining pre-cessation concepts of some of the roles one plays in life and fostering intimacy with friends and relations. Though it is likely the increasingly busy lifestyles

of others also made a major contribution to the decline in participation in intimacy fostering activities.

Participants found ways of coping with the many and varied post-driving cessation losses experienced. Coping strategies involved taking direct action to deal with problems, to make an unfavourable situation more favourable, acceptance, and adjusting preferences and goals. Not previously explored positive outcomes include: personal growth following stressful driving cessation experiences, such as improved coping skills; reduced stress at no longer having to drive; and financial benefits, though these are unlikely to lead to lasting greater happiness.

3.5 Discussion

The aims of this study were to: identify and explore the nature of subjective experiences associated with driving cessation in later life, including positive impacts and those that have not emerged in the previous research, and explain these findings in the light of research literature; identify and describe individuals' responses to post-cessation challenges; and collect relevant data to inform content and form of the interview questions to be used in subsequent studies in this research. The subjective experiences of driving cessation revealed in the text were many and varied. Consistent with previous studies (M. J. Bauer, Rottunda, et al., 2003; Bonnel, 1999a), this study found older adults who no longer drive experience a sense of loss in some form. Unique to this study was the finding that older ex-drivers form a narrative of their post-cessation experiences. Unprompted participants stressed the need to place their losses in the context of how and why they came to stop driving. Participants felt it was important to talk about the circumstances surrounding giving up driving, as if it was necessary for others to know this in order to understand the older adult's experiences of no longer driving. This suggests post-driving cessation interventions aimed at dealing with poorer well-being need to take into consideration ex-drivers driving cessation experiences. The reasons for driving cessation were unique to each participant and it may be that the timing and/or the nature of the giving up has a bearing on individuals' post-cessation experience. It seems likely that the timing of giving up driving, whether it was sudden and unexpected, and/or the nature of giving up driving, whether it was by choice or forced upon them, would have a bearing on individuals' experience. Whether the circumstances surrounding driving cessation has any significant impact on individuals' experiences of what it is like to no longer drive is an unknown and warrants further investigation.

As outlined above, subjective driving cessation experiences including loss of independence, reduced participation and social contact and a loss of intimacy, were consistent with current research and literature on driving and driving cessation, psychology of loss, sense of burden, stress-related growth, lifespan development, and successful ageing. Unique to this study was the identification and exploration of older adults' placement of driving cessation experiences into the context of how and why they gave up driving; the importance of psychological coping; and positive impacts of driving cessation, such as personal growth and relief. More general driving cessation issues, limitations and future research are now discussed.

3.5.1 Subjective Experiences of Driving Cessation

3.5.1.1 Independence and transportation

A number of studies have explored the availability of public transport to older adults and it is often recommended that a better transport system is needed in Australia to address the needs of older adults when they give up driving (Burkhardt, 1999; RACV, 2009). This study seems to indicate access to appropriate commercial and public transport alone may not mitigate negative driving cessation experiences involving loss of independence. Regular access to a car confers a greater sense of mastery, self-esteem, autonomy, and prestige than access to public transport (Ellaway et al., 2003; Hiscock et al., 2002; Jensen, 1999). Therefore, commercial and public transport may not contribute to psychological well-being in the same way or to the same extent that being able to drive oneself does. The provision of a better transport system on its own is unlikely to be sufficient to address the multiple and complex issues that result from driving cessation.

Accessing lifts from others is not without its problems. Accepting a lift is often accompanied by thoughts of being a burden on, or a nuisance to the lift provider. A

sense of burden is felt as is the obligation to minimise or make amends for the inconvenience. Thus, accepting lifts from family or friends may have a somewhat negative impact on ones' sense of independence. Lifts tend only be accepted for journeys considered necessary. Attitudes towards accepting a lift may therefore impact on out-of-home activity participation more so than driving cessation per se. When ones' attitudes to accepting lifts are negative, participation in social activities may decline in frequency, as found for some participants in this study.

Previous research suggests overall non-essential travel and participation in out-of-home activities among community dwelling older adults decline as a result of giving up driving (Marottoli et al., 2000). Driving cessation and transport research recommend the provision of transportation that is readily available, adequate, affordable and safe; and that funding be made available for education and support programs. These recommendations should seek to overcome barriers to accessing community and public transport, and assist older adults to learn to use alternative transport and reduce the stigma of its use (M. J. Bauer, Rottunda, et al., 2003; Bonnel, 1999a; Gilhooly, Hamilton, O'Neill, Gow, & Pike, 2002; Liddle et al., 2004). In the current study there are indications that targeted affordable and convenient transport, or the provision of activities where travel is not required, within a small community may be effective for maintaining activity levels and social engagement in older adults post-driving cessation. It is possible retirement village targeted services might be more effective than broader government public transportation and urban development polices for supporting ex-drivers to maintain activity levels and social engagement.

However, the provision of available and adequate transportation in the hope that older adults will use it and maintain levels of social contact may be met with limited success. Whether individuals would take up or increase their use of public transportation to maintain their level of participation in social activities has yet to be

demonstrated. Research suggests that when the opportunity for social activity is provided, older adults often don't take up the opportunity (Carstensen & Erickson, 1986). Programs designed to circumvent the barriers to social activities and intimacy fostering activities, such as providing transport for those who no longer drive, also need to identify the psychosocial needs and goals of older adults and tackle the psychological barriers to those needs and goals being met. Further investigation is warranted.

3.5.1.2 Positive impacts

Ex-drivers report more positive views of the post-cessation phase of driving compared with drivers' anticipated experiences (Gilhooly et al., 2002). This is not to say ex-drivers necessarily experience giving up driving positively, simply that their experiences were less negative than they may have anticipated. However, driving cessation need not signal the end of independence (Buys & Carpenter, 2002a), positive feelings about giving up the car may be experienced (Carp, 1971), as well as reduced levels of stress, financial advantages, and social gains (Liddle et al., 2008).

The present study is the first to provide an in-depth exploration of potentially positive outcomes arising from driving cessation. Personal growth is known to be a positive outcome of exposure to stressful situations (Park, 1998) and giving up driving can be stressful (M. J. Bauer, Rottunda, et al., 2003; Bonnel, 1999a; Liddle et al., 2004). It was not known whether personal growth would ensue from the experience of giving up driving. This study indicates that personal growth can be a benefit of giving up driving. To cope with the negative experiences associated with no longer driving older adults may experience personal growth as they learn new ways of coping and acquire greater patience.

Given the costs of running a car (RACQ, 2011), one would expect there to be financial benefits to giving up driving. It was not known whether older ex-drivers would identify saving car-ownership expenses as a benefit of giving up driving. This

study indicates some ex-drivers identify financial savings as a benefit of giving up driving. An intervention increasing awareness of the financial benefits of giving up driving may facilitate devaluing the importance placed on driving and support well-being. However, acknowledging the financial benefits alone will have minimal effects which are unlikely to be long lasting (cf. Myers & Diener, 1995).

3.5.2 Responding to the Challenges of Driving Cessation

Unique to this study is the exploration of psychological coping strategies that do not involve taking direct action, which have not been the focus of previous driving cessation research. In addition to taking direct action, participants in this study talked about coming to believe previously valued activities were not as important and accepting circumstances as they are. Adopting cognitive coping strategies is almost certainly essential to deal successfully with giving up driving (Buys & Carpenter, 2002b). An empirically supported dual-process model of coping, formulated by Brandtstädter and colleagues (Brandtstädter & Greve, 1994; Brandtstädter & Renner, 1990a; Brandtstädter & Rothermund, 2002), discussed in the previous chapter, provides a framework for understanding these two distinct ways of coping. According to the model, when life circumstances are perceived as unfavourable individuals attempt to avoid or correct the situation (assimilation) and/or revise their thinking about their preferences/the situation so that unfavourable circumstances are perceived as being favourable/less unfavourable (accommodation) (Brandtstädter & Renner, 1990a). Assimilative and accommodative modes of coping are discrete but not mutually exclusive processes and the process of evaluation in ongoing. A key component of the assimilative and accommodative model is the interplay between the two processes. Successfully adopting the appropriate balance of strategies at the appropriate time neutralises the discrepancies between an individual's desired self and an individual's

actual self, which maintains or increases satisfaction with life (Brandtstädter & Renner, 1990a, 1990b). Situational parameters associated with driving status, such as the weather, define which process, assimilative or accommodative, predominates. For example, when the weather is conducive to walking, even if it is only to a bus stop, assimilative coping may dominate; when it is cold and wet assimilative coping may give way to accommodative coping, as the cost of going out (discomfort) comes to outweigh the benefit (the reason for going out). This area warrants further exploration.

3.5.3 Other Considerations

Driving cessation research often cites reduced mobility, decreased levels of out-of-home activity, loss of independence, loss of spontaneity, and emotional distress as consequences of stopping driving (Adler & Rottunda, 2006; M. J. Bauer, Rottunda, et al., 2003; Bonnel, 1999a; Burkhardt, 1999; Marottoli et al., 2000). Some studies consider the moderating effects of participants' sociodemographic and health-related status on the relationship between driving status and an outcome variable, such as out-of-home activity levels. In this study, participants expressed the opinion that the environment in which they live (a retirement village) minimises the number and intensity of negative impacts experienced when driving is given up. Retirement villages provide specific care needs to residents, such as health care and transport, and many offer general support in terms of a social and physical environment conducive to maintaining and enhancing residents' overall quality of life. Retirement village living supports higher or similar levels of social participation and activity among residents compared with community dwellers and maintains the balance between autonomy and security (Gardner, Browning, & Kendig, 2005). Future ageing studies should consider the potential moderating effects of retirement village living on the experience of no longer driving.

3.5.4 Limitations and Future Studies

When considering the study findings it is important to note that all focus group participants reside in Independent Living Units (ILU) where they have access to supports, such as occasional transport for shopping/leisure activities, which community dwelling ex-drivers are less likely to have access to. These participants may not be representative of community dwelling ex-drivers, which affects the transferability of the findings. Residing in an ILU (with all the associated benefits of support with health care, transport, social activities, and an age appropriate physical environment) may lead to a less negative experience of no longer driving compared to the general population and higher levels of well-being generally. In addition, retrospective reflection may lead to inaccurate accounts of post-driving cessation experiences, such as a more positive reframing.

Attempts made to recruit an equal number of males and females for this study and a diverse and sufficient number of participants to hold two focus groups were not met with success. The non-representativeness of the sample (participants being mainly female and residents of a retirement village) and the small sample size limits the transferability of the findings. The findings cannot be said to be applicable beyond the context of this study. However, "in-depth contextualised accounts" (R. S. B. Ma, 2000), such as those presented here, do provide a platform for further exploration.

This study suggests sense of independence (autonomy), and the nature of the individuals' relationships with others, specifically a loss of intimacy, are affected negatively by giving up driving. Declines in sense of autonomy and sense of relatedness, along with a sense of competence, are associated with poorer well-being (Deci & Ryan, 2000a, 2000b). A loss in any of these may explain, in part, the relationship between giving up driving and increased depressive symptoms.

When prompted to think of some advantages of no longer driving, participants

may retrospectively rate the experience as positive having not been aware of the positives before. Data collection via focus group discussion may create the illusion that positive driving cessation outcomes are more commonly experienced than they are. A positive outcome raised by one participant may be endorsed by another who, until that moment, had not necessarily been aware of the positive outcome. This was made apparent when participant Mel stated "I haven't thought about it [financial savings] in those terms." Then acknowledged a benefit of giving up driving was "the financial aspects and the costs of the car" and that apart from this there were no benefits. Had this participant been interviewed on her own it seems unlikely that she would have identified any financial benefits to no longer driving. When conducting interviews as part of the second study in this research project, the interviewer was mindful of prompting without suggestion to elicit information regarding driving cessation experiences.

Focus group discussions are an effective way of collecting rich in-depth data and there is the potential for participants' responses to inform the content of the open-ended interview questions in further studies to include topics that have not arisen in the previous research. Themes identified from this focus group discussion informed content of the open-ended interview questions in Study Two by providing boundaries and focus to the questions. Further, the discussion informed the compilation of a provisional list of codes to be used in the qualitative analysis of Study Two data, by providing potential responses (see Chapter 4). The decision was made to give attention to the reasons why, and the circumstances under which, participants gave up driving because this information was important to the focus group participants (as mentioned above). It may be that the circumstances under which participants gave up driving are related in some way to individuals' experiences after giving up driving and this was only briefly explored in the current study.

Chapter 4

STUDY TWO

CHAPTER 4: STUDY TWO

4.1 Abstract

Previous driving cessation research tends to be descriptive and to focus on negative outcomes and behavioural coping strategies, with positive outcomes and psychological flexibility, on the whole, overlooked. This study explores in greater detail several themes that emerged from the focus group discussion, again taking into consideration the body of literature on driving cessation. In addition, information about the circumstances surrounding giving up driving, ex-drivers' experiences of giving up driving and of no longer driving, coping, and subsequent well-being was sought. Sense of competency, autonomy, and relatedness are explored. The ways individuals deal with the challenges following cessation are examined in greater depth. In addition, post-cessation changes in mood are considered to better understand driving cessation and well-being. No theories have been postulated to explain post-driving cessation experiences and how they relate to well-being. The findings of this study, the theory of Self-Determination Theory (SDT), and the Assimilative and Accommodative Model of Coping were integrated to form a theory that explains and interprets the post-cessation phase of driving. To achieve this, a grounded theory qualitative design was adopted. Data were collected through semi-structured open-ended interview questioning. Participants were 12 ex-drivers, 11 were female; ages ranged between 66 and 89 years, with a mean age of 81 years (SD = 7.2). In addition to those themes identified in previous research, themes such as autonomous versus heteronomous decision making and autonomous independence versus autonomous dependence emerged, revealing more complex decision and post-cessation phases of driving experience. Reduced sense of autonomy, relatedness and competence post-cessation were reported, however it is unclear whether reductions can be attributed to driving cessation per se. Patterns emerged of interrelationships between sociodemographic characteristics and themes,

upon which a comprehensive theory of the impacts of driving cessation on well-being was developed.

4.2 Introduction

> "If you want to know how to age successfully, your best bet is to ask older adults who've figured out the secrets." (Whitbourne, 2012)

If you want to know how to give up driving successfully, a logical step would be give comparable attention to older adults who have given up driving with relative ease, experienced minimal negative impacts, and/or coped with no longer driving, as to those who experience negative outcomes. Previous research has focused mainly on negative experiences and the direct action older adults take to cope with no longer driving. The focus group discussion, reported in the previous chapter, indicates negative emotions may only be experienced occasionally and momentarily. In addition to direct action, adjustment of preferences and goals may enable older adults to deal with cessation and post-cessation losses. This study continues the exploration of older adults' experiences of giving up driving.

4.2.1 Previous Research

Experiences of driving cessation are many and varied, yet the research has focused on those that are negative. Loss may play a significant part in the experience of driving cessation: loss of independence, loss of spontaneity (Adler & Rottunda, 2006; M. J. Bauer, Rottunda, et al., 2003), and loss of opportunities to engage in out-of-home activities (Bonnel, 1999a). Furthermore, giving up driving often leads to emotional distress (Adler & Rottunda, 2006; M. J. Bauer, Rottunda, et al., 2003; Bonnel, 1999a; Fonda et al., 2001; J. E Johnson, 1999; Marottoli et al., 1997; RACV, 2009). However, older adults find ways to cope with no longer driving. Research generally focuses on coping strategies that involve finding other modes of transportation, mainly relying on

family members or friends for transport. Additional coping strategies include: planning ahead, combining business with pleasure, having others perform out-of-home tasks, and moving house to be closer to goods and services (M. J. Bauer, Rottunda, et al., 2003; Bonnel, 1999a; Davey, 2004; Liddle et al., 2008). Psychological flexibility as a mode of coping has, on the whole, been overlooked. Psychological flexibility is demonstrated when strategies, such as acceptance and compromise, are used to cope with distressing circumstances that either cannot be altered or the costs of doing so are considered too great (Brandtstädter, 2009; Brandtstädter & Renner, 1990a).

The focus group discussion, reported in the previous chapter, revealed ex-drivers form a narrative, beginning with how they came to stop driving, placing post-cessation experiences into the context of both the decision and post-cessation phases of driving. Driving cessation events, such as abruptly having to stop driving or multiple concurrent losses around the time of cessation, may influence post-cessation experiences. Independence was highly valued among older ex-drivers, its loss was keenly felt, and loss of independence tended to be experienced as a result no longer being able to perform activities outside the home without feeling burdensome or obligated to others. Many activities given up when driving ceased were intrinsically intimacy-fostering social activities, (such as visiting family members and attending senior's groups), this may adversely affect relationships with friends and relations. However, other factors, such as poor health and the increasingly busy lifestyles of others, may also contribute to declining participation in social/intimacy fostering activities. Low mood and irritability were experienced after driving ceased. However, these negative emotions were only experienced occasionally and momentarily among most participants. Ex-drivers took direct action to manage post-driving cessation problems and adjusted preferences and goals, which seemed to enable them to deal with cessation and post-cessation losses. Personal growth was experienced by a couple of participants and this appeared to occur

when coping proved effective. When driving had been stressful, no longer driving was a release from that stress post-cessation. And finally, financial benefits to giving up driving were raised, though some ex-drivers only became aware of this benefit during the discussion (cf. Chapter 3).

4.2.2 The Current Study

This study continues the exploration of older adults' experiences of giving up driving and is also exploratory in nature. Therefore, no hypotheses were formulated prior to data collection. This study focuses on the positive and negative psychosocial impacts of driving cessation and meeting the challenges associated with no longer driving. It is assumed that driving cessation per se is neither positive nor negative. Rather driving cessation gains positive and/or negative value only in relation to the individuals' self-definitions, preferences, and goals (Brandtstädter & Renner, 1990a). Ex-drivers' interpretation of post-cessation experiences may depend on driving-cessation precipitating events (Fonda et al., 2001). Situations signifying contingency based schedules (e.g., when control taking behaviours are ignored or punished) to older adults, for example, could adversely affect well-being (M. M. Baltes & Skinner, 1983). Therefore, because ex-drivers' post-cessation experiences may be influenced by driving-cessation precipitating events, in addition to post-driving cessation experiences attention is given here to the decision phase of driving.

Information regarding older adults' thoughts and feelings about driving, and reasons for, and the circumstances under which driving was given up, can be used to group ex-drivers according to the level of choice they had in making the decision to stop driving. There are three distinct decision making levels of choice: 'proactives', 'reluctant accepters', or 'resisters'(Adler & Rottunda, 2006). Individuals who proactively and voluntarily make the decision to stop driving and then inform family

and friends cease driving of their own volition: circumstances such as this are likely to be supportive of sense of autonomy and well-being (Ryan & Deci, 2001). 'Reluctant accepters' reluctantly accept the decision to give up driving: acceptance occurs after driving ceases, over time, as the individual recognises and agrees they will not drive again. The time it takes to reach this acceptance varies from individual to individual (Dickerson et al., 2007). Acceptance requires psychological flexibility (Brandtstädter & Rothermund, 2002) and when achieved is associated with well-being (Brandtstädter & Renner, 1990a, 1992). 'Resisters' would not have stopped driving by choice, they will have been told they have to give up driving, possibly by the Driver licensing authority in their state or territory, if they have failed to pass a medical examination (Ausroads, 2012). Resisters often challenge, ignore, and even defy orders to stop driving and may continue to drive until they are forced to stop (Adler & Rottunda, 2006). Observed similarities and differences between groups of ex-drivers based on level of choice in the decision to stop driving may provide a deeper and more complex understanding of driving cessation than description alone. Exploring similarities and differences between these groups and their post-cessation experiences may reveal patterns from which a theory can be developed to better understand and explain individual differences in post-cessation experiences.

A common belief among older drivers is that driving cessation leads to increased emotional distress (Carp, 1971), and there is robust evidence to suggest driving cessation does lead to increased emotional distress for many ex-drivers (Fonda et al., 2001; Marottoli et al., 1997; Ragland et al., 2005; Windsor et al., 2007). Low mood and irritability may be experienced after driving ceases, for some this may be enduring, and for others less so (cf. Chapter 3, Study One). Existing research does not reveal the exact timing or nature of post-cessation decreases in well-being (Marottoli et al., 1997) and there is little to indicate what might explain such an outcome. Decreased sense of

control contributes to increased depressive symptoms (Windsor et al., 2007), and loss of independence and sense of burden on others for transportation are thought to trigger feelings of guilt and sadness (Chapter 3, Study One; Ragland et al., 2005).

Evidence that driving cessation leads to poorer well-being is used to argue for interventions to promote the prevention/delay of driving cessation and to ease the transition to driving cessation (Fonda et al., 2001; Ragland et al., 2005). Two psychology interventions for older adults who have ceased driving and experience poorer well-being have been identified (Dobbs, Harper, & Wood, 2009; Liddle et al., 2007). However, there is a paucity of information on which to base the design and implementation of such interventions. In the absence of this information, psychological theory and practical considerations may inform future interventions (Windsor & Anstey, 2006). However, before a coherent intervention for protecting against the negative psychosocial impacts of driving cessation can be developed and implemented, research is needed to better understand how and in what way mood is affected by no longer driving.

Oftentimes, older adults report loss of independence after giving up driving. A sense of being independent is gleaned from having the capacity for self-direction and experiencing the freedom to make choices about one's own actions (Sixsmith, 1986). This description of independence is akin to having a sense of autonomy (cf. Deci & Ryan, 2000a). Autonomy is one of three experiential states necessary for optimal development and wellbeing, the other two states being sense of relatedness and sense of competency (Deci & Ryan, 2000a). In addition to loss of independence, ex-drivers report increased loneliness and less contact and intimacy with family and friends (Study One, this thesis; Bonnel, 1999a; J. E. Johnson, 1998, 1999), suggesting those who no longer drive may experience reduced sense of relatedness. Sense of competency among ex-drivers' has not previously been explored. Ex-drivers' experiences of autonomy,

relatedness and competency warrant further investigation: all three, discussed in previous chapters, are associated with well-being (Deci & Ryan, 2000a) and at least two (autonomy and relatedness) may be adversely affected when driving ceases.

Over time, many older adults adjust to no longer driving (Davey, 2007). The behavioural coping strategies ex-drivers adopt to manage restricted post-cessation out-of-home mobility have been extensively described (Bonnel, 1999a; Davey, 2007; Liddle et al., 2008). Scant attention has been given to the psychological coping strategies used by ex-drivers when there are no solutions to be found, or when the costs of potential solutions are unacceptably high. Coping research demonstrates adaptive ways of coping in response to stress are related to higher levels of well-being. The Accommodative and Assimilative Model of Coping (discussed in Section 2.5.3, Chapter 2; and cf. Brandtstädter & Renner, 1990a; Brandtstädter & Rothermund, 2002) is a dual process model, which describes adaptive modes of coping associated with well-being (Brandtstädter, 1999; Brandtstädter & Greve, 1994; Brandtstädter et al., 1993). When driving is no longer possible, finding other means of transportation is a form of assimilative coping. Driving cessation coping strategies resulting in acceptance and compromise, involving the adjustment of preferences and goals, are forms of accommodative coping. Exploring similarities and differences between individuals' coping styles and their post-cessation experiences may reveal patterns from which hypotheses may be developed and later tested. Identifying the ways in which older adults managed to give up driving with relative ease, experience minimal negative impacts, and deal with no longer driving would inform interventions to help those for whom post-cessation well-being is poor.

4.2.3 Grounded Theory

A grounded theory qualitative study design is recommended when the aim of a study is to generate theory from data. Grounded theory is a systematic process of inductive reasoning, where inferences are built on data, such as interview responses, for generating theory. In this way, any theory generated is grounded in 'real-life' data (Charmaz, 2003; Glaser & Strauss, 1967; Stern & Porr, 2011). Data analysis involves coding sections of data and constantly comparing the sections with one another to create concepts of understanding. In doing this, researchers using grounded theory analysis adhere to four basic principles (Stern & Porr, 2011). First, researchers adopt the role of an explorer, one who is curious and open minded, seeking to discover rather than verify the essence of the data. Second, researchers seek to understand, interpret, and explain, rather than simply describe, observations made of the data. Third, theory is allowed to emerge from the data without outside influence. That is, data are not to be forced to fit some preconceived notion or theory. Fourth, a matrix approach is adopted; this is a cyclical process of data collection and data analysis. Grounded theory methodology involves, at times, performing tasks simultaneously. The end result is the progression from concrete data to abstract theory (Burnard, 1991; Glaser & Strauss, 1967; Stern & Porr, 2011).

The outcome of a grounded theory approach to research is the discovery of theory from data; a theory that is understandable to the academic and layperson alike (Glaser, 1965). Most importantly, the discovered theory will provide explanations and interpretation of the area under investigation, include relevant predictions, and have applicability (Glaser & Strauss, 1967). Regarding the current study, the grounded theory approach was used to gather information from which to discover a theory explaining the relationship between experiences of driving cessation and well-being,

and to identify which factors predict poorer or better post-driving cessation well-being, to inform development of interventions to promote post-driving cessation well-being.

Many of the qualitative research methodologies would have been appropriate for researching the subjective experiences of older ex-drivers, for example phenomenology, discourse analysis and narrative analysis. The methodology that is used will depend on the research goal(s) and question(s). In brief:

> The goal in phenomenology is to study how people make meaning of their lived experience; discourse analysis examines how language is used to accomplish personal, social, and political projects; and grounded theory develops explanatory theories of basic social processes studied in context (Starks & Brown Trinidad, 2007)

Phenomenology, specifically phenomenological hermeneutics, has been discussed in the previous chapter. Discourse analysis of data focuses on the language used and the ways in which certain themes and topics are discussed; a grounded approach is often used prior to discourse analysis to identify the relevant themes (Burck, 2005; Starks & Brown Trinidad, 2007). Narrative analysis of data focuses on the construction of self-accounts, such as plot-lines and genre (Burck, 2005). Grounded theory, as discussed above, focuses on concepts in the data from which theory is discovered (Glaser & Strauss, 1967; Starks & Brown Trinidad, 2007). The focus of this study is the experiences of ex-drivers, rather than how those experiences are constructed or the implications of a particular account, or the plot-lines and genre used, with the aim of forming a theory that explains and interprets the post-cessation phase of driving.

4.3 Method

4.3.1 Participants

Participants were sought via awareness-raising talks, leaflet drops, and seniors' organisations (e.g., Community Clubs). In accordance with theoretical sampling techniques (cf. Glaser & Strauss, 1967; Taylor & Bogdan, 1984), older adults with sociodemographic characteristics different from focus group participants were sought, with the aim of tapping into a broader range of experiences. Eligibility requirements were broad. Criteria included males and females, aged 65 years and above, who had not driven for one month and would not drive again, who understood the study and were willing and able to give informed consent to participate.

The sample consisted of 12 ex-drivers, 11 of whom were female. Participant demographic statistics are reported in Table 4. Participants' ages ranged between 66 and 89 years, with a mean age of 81 years (SD = 7.2). Three of the four married/de-facto participants had access to another driver; who was usually their spouse.

Table 4

Demographic Characteristics of Interview Participants

Demographic Variable	Number *(SD)* and %
Gender	M = 1 F = 11
Age	Mean: 81 years *(7.2)* Range: 66 – 89
Marital Status	31% = Married/de-facto 0% = Separated/divorced 62% = Widowed 7% = Never married
Access to other driver	Y = 75% N = 25%

Of the widowed participants, two had access to another driver; usually their daughter. Case profiles are presented in Appendix D.

4.3.2 Procedure

Participants were interviewed on a single occasion in their home. Interviews were conducted face-to-face or over the telephone, depending on participant preference. Instructions given to each participant just prior to the interview were as follows:

> In this interview I'm going to ask you questions about your experiences of giving up driving. These experiences may be seen as being positive, negative or neutral. I will also ask you about the coping strategies you use to deal with any challenges that have arisen as a result of giving up driving.

Sociodemographic information was collected at the start of the interview. Semi-structured, open-ended interviewing techniques (Patton, 2002; Taylor & Bogdan, 1984) were used to obtain in-depth data about older adults' experiences of the decision and post-cessation phases of driving. Open-ended questions were used as an interview guide, to help keep the interview focused, as opposed to providing a structured protocol. Probing and clarification questions were asked of each participant when the interviewer sought to elicit further information and to clarify meaning. Each interview lasted approximately 35 minutes and was audio-recorded to ensure the existence of a complete record of all responses from participants.

4.3.3 Interview Guide

This study was preceded by a focus group study (cf. Chapter 3), which identified many issues faced by older ex-drivers. This information, along with previous research findings, was used to develop the general content of the interview questions used. The final open-ended interview questions were determined after consideration of the previous research findings and the overall research question. Themes included: importance attributed to driving; difficulty and level of choice making the decision to

stop driving; level of stress experienced; impacts of giving up driving, (positive, neutral and negative); and behavioural and/or psychological ways of coping. The impacts of giving up driving related questions included reference to specific domains thought to be affected by driving cessation, such as mood (Davey, 2007; Fonda et al., 2001; J. E. Johnson, 1998; Marottoli et al., 1997; Ragland et al., 2005; Windsor et al., 2007), out-of-home activity (M. J. Bauer, Rottunda, et al., 2003; Davey, 2007; J. E. Johnson, 1998; Marottoli et al., 2000), and level of independence (Adler & Rottunda, 2006; M. J. Bauer, Rottunda, et al., 2003; Bonnel, 1999a). The stress-coping paradigm, which incorporates Self-Determination Theory's basic psychological needs (cf. Section 2.4 in Chapter 2), informed the conceptualisation of independence as 'autonomy'. In addition to sense of autonomy, sense of competency and relatedness were considered in the questioning. The interview schedule follows:

4.3.3.1 Sociodemographic characteristics

(a) Gender, (b) Date of birth (DOB), (c) Marital status, and (d) Who, if anyone else, in your household drives?

4.3.3.2 Driving related questions

Decision phase:

1. How important to you was being a driver?
2. How difficult was it to give up driving?
3. To what extent was it your choice to give up driving?
4. To what extent would you say giving up driving was stressful for you?

Post-cessation:

5. What do you think the positive, negative and neutral impact(s) have been on you as a result of giving up driving? The following prompts may be given:

(i) changes in mood

(ii) changes in the level of or types of out of home activity, and

(iii) changes to you role(s) in society.

Participants may be reminded that these may be positive, negative or neutral changes.

6. To what extent would you say the impact(s) of giving up driving are controllable?

7. I'd like to talk about how able you feel doing day-to-day activities and specifically in what way(s), if at all, you think this has changed because you gave up driving?

8. What about the amount of freedom you have to make your own choices in life? In what way(s), if at all, you think this has changed as a result of giving up driving?

9. The relationships you have with others. In what way(s), if at all, do you think they have changed as a result of giving up driving? Prompts may include: how easy it is to get together with family and/or friends, the participant's sense of belonging, and how close they feel to their family and/or friends?

4.3.3.3 Coping related questions

10. We all have things we need or like to do, for example shopping. And many people use their car to get to the shops. Now that you no longer drive, how do you to continue to do the things you need or like to do?

11. Can you tell me about a time when you couldn't do exactly what you wanted to do because you no longer drive?

12. What (if any) kinds of compromises do you have to make or have made because you stopped driving?

Examples of probing questions are: 'can you tell me a little bit more about that' and 'why do you think that is?' Questions aimed at clarifying meaning included: 'it sound like you are saying...' and 'So what you are saying is it was...'.

4.3.4 Pre-data Collection Coding

Adhering to a grounded theory approach, prior to data collection and analysis a preliminary list of data codes was developed. The list provided necessary structure for the further exploration of previously identified themes, while also allowing for the open-minded, context-sensitive approach of the grounded theory method of text analysis (Glaser & Strauss, 1967). Throughout data collection and analysis the codes were reworked to improve clarity and validity, and new codes to emerge from the text were added. Open coding from Study One informed the categories into which the interview questions were grouped, those categories being: sociodemographic, driving related or coping related. Each category was divided further into main themes, which were subsequently divided into sub-themes. For example, the driving related category was divided into decision phase topics, such as difficultly giving up, and post-cessation phase of driving topics, such as impacts of giving up. 'Impacts of driving cessation' was further divided into impacts of driving cessation on sense of autonomy, and so forth. Coping category questions were divided into theoretical modes of coping: assimilative and accommodative, including compromise. To better conceptualise the themes underpinning each category of questions, a provisional list of codes was constructed for each category, main theme and theme prior to commencing the interviews (See Appendix E: Provisional List of Codes). With each code, a definition was constructed to expand on and develop the theme underpinning the code, (a provisional list of code definitions is reported in Appendix F). The list of codes and the

list of definitions were constructed in accordance with recommended grounded theory early steps of analysis (Miles & Huberman, 1994).

4.3.5 Treatment of Data

The audio recordings of participant contributions were transcribed in their entirety along with the interviewer's comments and questions seeking informant feedback as part of the validation process. Audio-recordings and transcriptions were imported into NVivo-8 software. Each participant's interview transcript (henceforward referred to as text) represented a single case in NVivo and was given an identification code; for example, the transcript of the first participant interviewed was assigned the code P. 121 (henceforward each participant will be referred to by their identification code). Each case was ascribed four attributes. Each attribute was derived from the response to the corresponding sociodemographic question: gender, age (which was calculated from date of birth), marital status, and the availability of another driver. Data for a fifth attribute, dwelling site, was obtained from information provided by each participant when organising the interview location.

Due to the non-linearity of grounded theory analysis there is no set methodology to guide specific research projects. There are, however, suggested techniques and procedures; techniques such as: open or selective coding, constant comparison, memo writing, and theoretical coding (Glaser, 1965; Glaser & Strauss, 1967; Stern & Porr, 2011). Before describing the analysis of the texts, some terms needs clarification. Researchers and software programs designed to facilitate quantitative analysis often use the same terms to denote differing concepts, and different terms to denote the same concept. For example, the word 'category' is used to refer to a group of conceptually similar open coded text (Glaser & Strauss, 1967), the word category is also used to refer to a group of headings, which are applied to groups of text that are similar in content

(Burnard, 1991). A glossary of the terms used in this chapter to describe data analysis methods can be found in Appendix G. Throughout this thesis, the terms category, main themes, and themes have been used. Category refers to a group of something with shared characteristics, main theme refers to a general topic of discussion, and theme refers to specifics within a general topic of discussion. Qualitative data analysis was conducted in two phases. Analysis of the data was an iterative and inductive process, beginning with a coding paradigm then shifting to the identification of relationships between the emerging categories.

4.3.5.1 Phase One - Conceptual exploration of the texts

In accordance with the grounded theory approach, constant comparative methods were used to organise and examine the text for themes. Throughout the process of analysis, the preliminary list of codes and list of code definitions were added to and reworked to improve clarity and validity. This process provided a detailed and systematic list of the themes that emerged from the data. Selective coding was used to identify recurring issues and concerns within and between texts to analyse data as it was collected. Coded themes were compared with one another and with emerging conceptual categories using the constant comparison method. Coded data influenced future data collection and coding; with the purpose of updating the preliminary list of codes or code definitions to incorporate unexpected themes emerging from an interview that seemed salient and worthy of further exploration and clarification. Unexpected themes were explored in subsequent interviews with participants who had not yet been interviewed. This process was repeated with each successive interview until nothing new or salient emerged in data collection. Memo writing was used to help maintain focus, to facilitate conceptualisation of the text, and to keep track of the analysis process and decision making (providing a map of the route analysis was taking). Conceptual categories were developed and brought together into a theoretical structure through a

process of theoretical coding. This involved theoretical sampling (Glaser & Strauss, 1967; Taylor & Bogdan, 1984) to develop conceptual categories, and the construction of theoretical codes to organise the conceptual categories into some logical order. A theoretical code was assigned to each group of conceptual categories, which in their turn were representations of groups of similarly coded text. In this way, the text was organised into four tiers of increasing abstraction from the data. This hierarchical organisation of data is displayed in Figure 4: a section of text at the base, the concrete data, through to the theoretical code at the top, the highest abstraction of the data (Stern & Porr, 2011, p. 73 provide the following example by way of explanation: a theoretical code applied to coping such as 'strategy' may be assigned to the following group of conceptual categories: 'mechanisms', 'goals', and 'dealing with').

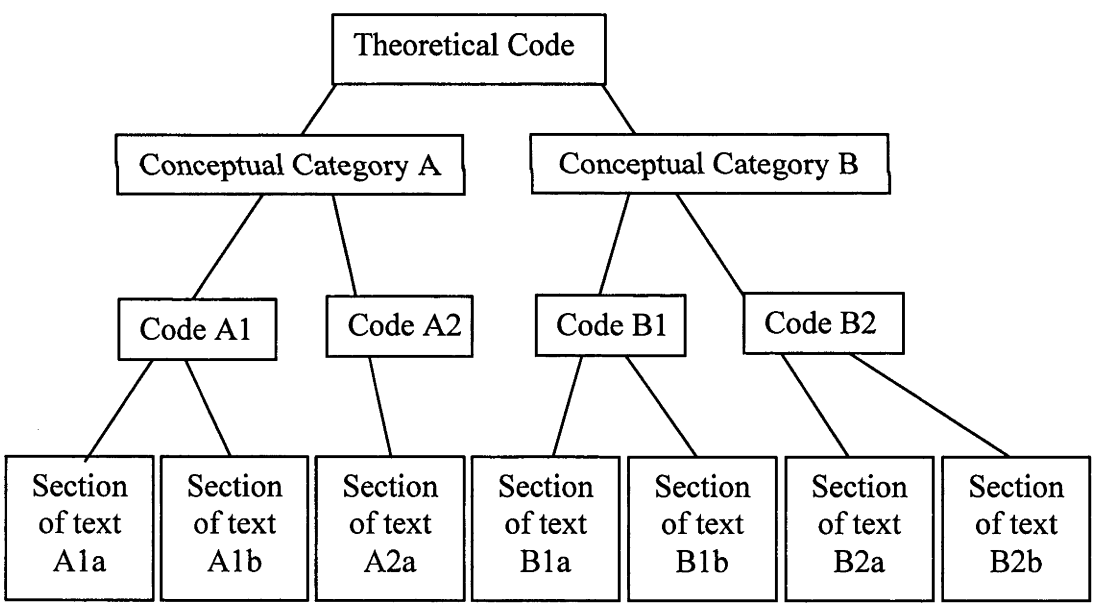

Figure 4. An example of hierarchical organisation of data from theoretical code (abstract) to sections of text (concrete).

Minor deviations from the prescribed method, outlined above, were sometimes required to better achieve the aims of a study, and for practical reasons. For example, validation of the process was conducted using a single text rather than all data. A

thorough approach was adopted for the conceptual exploration methodology. This first phase of data analysis involved ten steps. For example, at step 3, using NVivo software, the text was reviewed line-by-line to generate a list of core themes and themes to describe all aspects of the content, excluding 'dross' (cf. Burnard, 1991); with the view of possibly adding to the list of codes and the list of code definitions (see Appendix H: Conceptual Exploration Methodology for descriptions of each step).

4.3.5.2 Phase Two - Conceptualising codes' interrelationship

Pattern coding (Miles & Huberman, 1994) was used to form a matrix of the connections between themes and cases under a comprehensive category system to gain an understanding of patterns and recurrences, while theorising about what was going on in the text. Concepts were developed that highlighted driving cessation experiences and coping behaviours beyond description of specific examples from the texts. Participants' words and phrases summed up a concept and gave it its meaning. Theoretical propositions (cf. Taylor & Bogdan, 1984) were developed by examining themes and concepts, and by relating different sections of text to each other.

This second phase of analysis involved two steps. The first step involved formulating a matrix of the connections between themes to identify and understand patterns and recurrences within a text and between texts. Initially, to increase sensitivity to consistencies and inconsistencies within a text and between texts, the memos and notes detailing the themes discussed in each interview were read multiple times. The second step involved possible explanations for the patterns identified among the core codes were noted. Links within a text and between texts were identified using NVivo-8. The software was used for grouping sections of text, mapping concepts and the relationships between those concepts, through memo writing and text coding information into parent nodes. For between texts comparisons, in accord with Burnard's (1991) methodology, it was assumed that one individual's description of their

experiences could be compared and linked with another individual's description of their experiences.

4.4 Findings

4.4.1 Conceptual Exploration of the Texts

The main themes to emerge from the texts, guided by the interview schedule, were: driving and giving up driving; impact of driving cessation on mood, autonomy, relatedness, and out-of-home activity; coping; and positive impacts. Added to this list was the main theme 'no or minimal impact'. Themes, such as autonomous versus heteronomous decision making and autonomous independence versus autonomous dependence, emerged from within main themes, revealing more complex decision phase and post-cessation phase of driving experiences. Many of these themes are now presented below.

4.4.1.1 Decision making: levels of choice

The picture of the decision phase of driving portrayed by participants revealed not only three distinct decision making levels of choice, but also variants within one of those levels. Proactives act autonomously in the decision to stop driving; resisters have no say in the decision. Within the group of reluctant accepters, who reluctantly accept the decision to give up driving, there were those who came to that position on their own (autonomously) and there were those who were persuaded by others (heteronomously). The texts reveals those who accept on their own that giving up driving had been necessary tended to have been involved to a degree in the decision and used self-reflection; post-cessation they considered their age and how safe they would be on the road if they had continued to drive. These participants were coded 'autonomous reluctant accepters'. They may not have agreed that there was a need to stop driving at the time of cessation, but post-cessation their view had changed and they had come to own the decision to no longer drive. For example, P.123 said "In the beginning I didn't

have a choice ... in the beginning I just assumed I'd be driving ... I assumed, because of ignorance I suppose, but I just assumed. I had a very positive outlook when it first happened" over time she had decided "I'm not driving. It could be a danger to other people if I couldn't turn my neck to see other traffic coming, and I think it's unfair."

Those persuaded by others to accept they could no longer drive tended to have less involvement in the decision to stop than the 'autonomous reluctant accepters' and displayed a tendency to defer to the standards of others; post-cessation they continue to consider the views of others. These participants were coded 'heteronomous reluctant accepters'. They may not have agreed that there was a need to stop driving at the time of cessation, post-cessation the view has changed, but they have not come to own the decision to no longer drive, it remains the decision of others. For example, P.131 only stopped driving because she failed the sight test, she stated "Well I had to drop [pause] stop driving because of my eyesight. The [pause] I didn't pass the eye test to drive". If she passed the test she would have kept driving, however, "I knew was inevitable" she said, having now accepted the authorities' decision to withdraw her driving licence.

4.4.1.2 Dependence

Post-cessation, independence was not simply maintained or lost. There were those ex-drivers who continue to do what they want to do when they want to do it, without relying on others for support; maintaining a strong sense of autonomy. This was coded 'autonomous independence'. There were those who rely on others, but report maintaining a strong sense of autonomy. This was coded 'autonomous dependence'. These participants talked about deciding how and when they would rely on family or friends and being happy to accept the help of others. Participant P.121 said "I feel I've got total [pause] pretty well total control, yes" despite the fact "I have to be dependent on other people to get out to do something, whatever it is"; P. 131 said "certainly it hasn't worried me knowing that [husband] was there to drive me any time I

needed to go". Finally, there were those participants who are reliant on others and feel loss of autonomy; this was coded 'heteronomous dependence'. Comments from four participants reveal a sense of frustration and displeasure at being dependent on others: "I get frustrated at times, when I need something" said P.123, "But I don't like to be too dependent on them, of course" stated P.135, "It's made me more dependent. It's limiting" commented P.143, and P.147 declares "Yeah, well that is a bit frustrating I must admit, being dependent on family. I hate being dependent actually. I'm a very independent person." The texts show a sense of independence may be maintained post-driving cessation. When independence cannot be fully maintained, for example when ex-drivers become dependent on others for transportation, sense of autonomy will not necessarily become diminished. Ex-drivers who are dependent on family or friends for transportation may continue to experience autonomy when the ex-driver is able to choose from whom and when they receive help.

4.4.1.3 Relationships

Responses to the question regarding the impact of driving cessation on the relationships participants have with others revealed a variety of outcomes. For three participants contact with friends or family had increased post- cessation, because friends or family members spent more time with the ex-driver to provide support; the ex-driver now feels closer to them. The dialogue with participant P.130 went:

> Participant: 'in fact as far as my grandchildren are concerned they've been more of a help to me than when I was able to [drive] [pause] because I suppose I was a little bit dependent on myself and I wouldn't ask anybody, but you know, they were [pause]'
>
> *Interviewer: So it sounds like that might have actually got ... you see them more often because they're helping you.*

Participant: 'Yes, yes.'

Interviewer: Okay. That's interesting. And would you say this has affected how close you feel to your family?

Participant: 'Yes, they've become very close to me'.

However, the texts suggest that the more common experience among ex-drivers is a reduction in contact with friends or family members. While this does not seem to alter the ex-driver's sense of belonging, relationships did change. P.121 sees less of her friends, however, sense of relatedness, she says, has mostly remained unchanged: "I'm not there all the time. They're doing things that I'm not doing that I could have [pause] if I'd been there" but "I really felt left out [one] morning. It was absolutely the only time though". There has been a change in the relationship she has with her friends though, "I'm the oldie whereas I didn't seem to be before. And they look after me [pause]. Well I always was the oldest but it's more pronounced [since ceasing driving]"; and with her family, "The children have to be more thoughtful to who's going to collect Mum, that sort of thing". For one participant, level of contact did not initially change but the relationships they had with others had been adversely affected: P.146 described feeling like a "pariah" and "the odd one out". For one other participant (P.149), friends have rallied round him to help and in a way he feels closer to them while also feeling socially isolated, estranged, and indebted to them. The texts reveal the impact of driving cessation on sense of relatedness is likely complex and often unique to individual ex-drivers and their specific post-cessation circumstances.

4.4.1.4 Competence

The texts reveal decline in sense of competence, experienced by ex-drivers, does not appear to be related to driving cessation per se. Instead participant responses reflect

loss of confidence associated with declining physical functioning or, more generally, ageing. Some examples of representative comments are: "it is other things not to do with the driving" (P.121); "Oh no, not as a result of giving up driving. Just age" (P.147); and

> Absolutely no connection! I can't think of any reason. No, no. My decline is to do with anno Domini – to do with the fact that I was born too soon. If I'd been born 10 years later I'd be 10 years younger. No, nothing connected with the giving up of driving. No, no. (P.146).

Maintaining a strong sense of competence post-driving cessation is possible, P.135 stated "I don't think I feel less competent" and P.140 proffered, after some consideration, "I don't think so… Not at all, no". It may be concurrent events buffer the impact of driving cessation on sense of competence. Participant P.142 discussed loss of confidence in driving, however successfully moving house and learning how to access local services supported her overall sense of competence. The discussion went as follows:

> Participant: 'No. I know I wouldn't like to drive in bad weather and I do not like the roundabouts and the way you're cut off here. I feel I've got too old and too slow to deal with it. And that was one of the reasons I decided before I came here that I wouldn't drive.'
>
> *Interviewer: So that's one area...*
>
> Participant: 'Yeah, [just in that area], because I've learnt [pause] I've learnt to do a lot of different things in the few months I've been here.'

There was one participant for whom giving up driving had quite an impact on their sense of competence. This is what P.149 had to say:

> Participant: 'Yeah, well you're not [pause] your competency is being questioned all the time. "How come you don't drive anymore?" Or, "Why did you give up driving?" You always have to justify yourself to others. I mean you don't have to justify yourself but at the same time you do have to, if somebody asks and they say, "Oh well, you're too young to give up driving. You don't look old enough to [pause]." Like a lot of people say now, "You don't look sick enough to be retired or anything like that." So those are the kind of things.'
>
> *Interviewer: Yeah. So some stigma, stigma there.*
>
> Participant: 'But there's always [pause] yeah, it goes [pause] it's like not having a driver's licence is equivalent to being stupid, to being [pause] "How come you haven't got a driver's licence?" Or, "Why aren't you driving?"'

There is a sense here that withdrawal of driving privileges, because he was not 'competent' to drive, and no longer driving has weakened his sense of competence.

4.4.1.5 Coping

The various coping strategies to emerge from the texts were initially grouped according to whether they fit the definition of assimilative or accommodative modes of coping. There were, however, coping strategies to emerge from the texts that did not easily fit the definition of assimilative or accommodative modes of coping. All except one participant employed assimilative and accommodative modes of coping; one participant discussed only assimilative modes of coping; four talked about 'not dwelling'.

Assimilative coping identified in the texts involved using alternative modes of transportation, such as accepting lifts, using public community transport or scooters, and walking; making changes to daily routines, for example shopping locally and more

or less often; planning ahead; and in one instance, moving house. Participant P.121, who is representative of many in the sample, employs a number of assimilative coping strategies: "I can walk up here to the Deakin shops. I go to the IGA which is more expensive. I buy more stuff there now than I used to when I once a week would go to Woolworths or Coles at Woden and really stock up", "We drove out and back together", and "I realised I'd have to go to Civic, not Woden, so that meant thinking ahead about taxis".

Accommodative coping to emerge from the texts involved flexibly adjusting and revising hopes, preferences, values and goals. For example, accepting some activities are given up, P.121 stated "I've rather given up Manuka. And I could go now by taxi but I just do without it so to speak" while other things, such as mortality, gain importance: "I'm still alive" said P.142. There is negotiation and compromise "we sort of work around it" (P.131), and reframing problems into challenges, to instil a more positive attitude, for example, "I treated it as a challenge and I thought, I'm going to master these ruddy buses" (P146).

A coping strategy emerged from the texts that did not easily fit the definition of assimilative or accommodative modes of coping. There was a degree of ambiguity as to whether not dwelling on unsatisfactory circumstances could be considered an accommodative coping strategy. In some instances, not dwelling appeared closely associated with acceptance:

> That is one of the hardest things that I find at times, is accepting a situation, and then once you've made a decision it's easier ... Probably that's the way I do it, rather than dwell ... Don't dwell on what could have been or should have been (P. 123).

Not dwelling appears to be an accommodative coping strategy in the sense that it is part of acceptance and involves psychological flexibility. At other times it was not clear a

state of acceptance had been achieved: for example, P.147 bemoans the loss of an activity, she says "I was really unhappy about that. But anyway. So I've put that at the back of my mind now." There is an element of resignation about this, possibly indicating acceptance; however, there is a sense she is avoiding rather than accepting.

4.4.1.6 Positive impacts

All except one participant volunteered, when asked, examples of driving cessation positive outcomes. The positives revealed in the text were similar in many respects to those which emerged in the previous study. There was relief at no longer driving ("It was, yes, yes. And apropos from relief", P.121), having to maintain the car ("you've got to drive a car a lot to keep the battery going ... that was a problem I'd have ... that annoyed me a bit", P.130) or having an accident ("you don't have to worry about the car or having an accident or whatever, so that's positive", P.135). Further, there was enjoyment to be had from being a passenger ("it was much more relaxing to go on a train ... And I could usually read the newspaper or do the crossword or something", p.140) and the financial benefits of not running a car ("I was throwing away money on it", P.146). Lastly, another positive driving cessation outcome was personal growth that encompassed learning acceptance ("I guess it's taught me acceptance", P.123).

Positive outcomes, unique to this study, include increased sense of intimacy with those who support the older adult with post-driving cessation transportation (discussed above) and increased awareness. Participant P.123 said, "I guess the positive has probably made me more aware that other people have been in this situation younger and for longer than I have". An increased awareness of the plight of those who give up driving seems to have come from experiencing driving cessation herself. That is, she has evaluated her own circumstances by comparing herself to others less fortunate. Further, she seems able to focus on and be grateful for the positive aspects in her life

and reappraise her own situation (an accommodative coping strategy). By focusing on the positive in her life, the support of her husband and being relatively better off than many others, she feels better about her personal situation which may have boosted her overall sense of well-being. It may be, giving up driving was the catalyst for a process that enhanced, rather than diminished, well-being. Although beyond the scope of this thesis, the literature on gratitude and well-being is extensive (cf. Wood, Froh, & Geraghty, 2010).

Finally, rather than increased sense of burden, one participant experienced relief because she was no longer expected to provide others with a lift. At various points throughout the interview, P. 146 stated: "I got a bit put upon so I used to get sick of being asked to give someone a lift", "I don't like being put upon, or I didn't like being put upon", and "giving people lifts. I lost that one." When the interviewer suggested "it sounds like you were quite happy to lose that one" P.146 unequivocally replied "Oh very. Very, indeed".

4.4.2 Conceptualising Codes' Interrelationships

Theory was developed through comparison of participant attributes and interview content (see Appendix I: Data Matrix). Participant attributes are those sociodemographic characteristics thought to predict, exacerbate or moderate the impacts of giving up driving, for example marital status, availability of another driver, and dwelling site. Thoughts, feelings and behaviours regarding driving, and the circumstances around giving up driving might also exacerbate or moderate the impacts of giving up driving. Driving cessation categories, determined by level of involvement in the decision to give up driving, were used to explore different post-cessation experiences.

4.4.2.1 Marital status and availability of another driver

Of the 12 participants in this study, nine had access to another driver. Five of the twelve participants were married, of these four had a spouse that continued to drive. Four of the widowed or divorced participants, and the married participant whose spouse no longer drives, stated family members were readily available to provide transport. Having ready access transport meant going shopping and getting to medical appointments was easier than if no transport was available. The text indicated ex-drivers experience of giving up driving is different and more problematic, without the ready availability of another driver. Participant P.123 stated having "a good husband" who "has never once complained" about giving her a lift made "it much easier for me than a lot of ladies that I know would have been had they been in my position." This sentiment was echoed by participant P.125 who stated "being married made a difference" and participant P.131 said "there'd obviously be a big impact if I didn't have [my husband] around to do it, [drive]." The availability of another driver (whether spouse, other relative, or a friend), was not without issues, especially when the participant believes the person offering the lift is too old to drive safely. Asking for a lift is thought to be "cheeky" and accepting a lift can lead to feeling a sense of dependence, burden and/or obligation.

4.4.2.2 Dwelling site

Half of the participants lived in Independent Living Units (ILU: retirement village living where residents live independently and mostly provide for their own care), the other half were community dwellers. Those who lived in ILU had ready access to local shops and a calendar of social activities organised by the retirement village service provider:

> Here there's so many other things that you can do. You can go on a bus trip with a group or you can go and play shuffleboard or you can go to a sing-along or you can go to a movie. All this is laid on here" (P.142).

The main reasons for moving to an ILU were ageing and health related issues. Giving up driving also contributed to the decision to move when driving cessation was seen as an inevitable part of ageing. Participant P.135 said:

> I hope I've got a very positive attitude towards ageing but anyway, 10 years ago we decided to downsize so we bought a house that was within walking distance of our church and the Hyperdome. We're sort of halfway in between and so we've solved a lot of the problems that other people would have. If we were still in our house in Gilmore, we would be totally isolated. I tell you, it was up on the hill, a long way from the bus stop.

In situations where driving cessation was not expressly considered as part of the decision to move, moving to an ILU appeared to buffer the impact of no longer driving; for example, participant P.131 said "[where] we were living before, that [walking to the shops] wasn't a ... an option", now "I just walk down here" to the local shop. Compared with ILU dwelling participants, participants who live in the wider community described experiencing fewer opportunities to engage on out-of-home activities. There was a sense, however, that all participants, regardless of dwelling site, found they had to give up a number of valued out-of-home activities.

4.4.2.3 Thoughts, feelings and behaviours regarding driving

Participants who thought being a driver or being able to drive very important, or that driving was an essential part of life, reported feeling independent when they were drivers. As drivers, they tended to drive regularly, often long distances, for the

purposes of caring for others on a personal level or as volunteers. Generally, these participants described feeling disappointed, frustrated, even devastated at having to give up driving. One participant described at length the powerful "psychological bond" he had with his car, that it was like "an appendage" and that "psychologically you fall in a hole and you just don't see the way out of it" when you no longer drive" (P.149). Participant, P.146, reported being passionate about cars, regularly upgrading to the latest model, and completing advanced driving-skills courses. She, however, was of the view that giving up driving was inevitable and stopped driving of her own accord. She reported minimal adverse impacts of giving up driving; on the contrary, she reported satisfaction that she no longer had the costs and concerns of car ownership and the burden of having to give lifts to others. However, she described how those around her changed their attitude towards her: there was a sense of defensiveness and friction with others, she believed she was stigmatised and made to feel the odd one out as a non-driver among those who still drove.

In comparison, participants who thought "[being a driver] was [not] terribly important" (P.121) and that driving was simply a convenience, saying for example "the car is some way of you getting from A to B" (P.130), tended to find driving unenjoyable or found car ownership burdensome. For example, P.130 stated "when I had to look after [the car] I wasn't quite as much in love with it as I was before" and P.146 said "I got a bit put upon so I used to get sick of being asked to give someone a lift". When these participants were drivers, they tended not to drive often or only drove short distances: "[I] had no occasion to get in the car and drive up to Timbuktu or anywhere" said participant P. 130. When driving was given up, these participants described the experience as relatively stress free and feeling a mild sense of relief at no longer having to drive.

4.4.2.4 Circumstances around giving up driving

In addition to whether the participant proactively, reluctantly accepted or resisted giving up driving, pre-data collection coding was reworked to code the circumstances around driving cessations along two dimensions: (1) whether the decision to give up driving was autonomously made versus (2) being told to stop driving/having to stop due to poor physical functioning (heteronomy). The majority of participants (7) were proactive and autonomous in giving up driving, meaning it was their own choice to give up. Reasons included: poor physical health such as leg problems and deteriorating eye-sight, no longer needing to drive, safety issues, and the financial savings of relinquishing owing a car. These participants reported the process of giving up as being relatively stress free. Two participants were autonomous reluctant accepters and two were heteronomous reluctant accepters, meaning initially it had not been their idea to give up driving but they came to accept the need to stop. Their reasons for cessation were health decline along with it becoming obvious health would not improve and the influence of medical professionals or family members. Giving up driving had been somewhat difficult, but one said "not as difficult as I anticipated" (P.123). Participant P.149 had no choice but to give up driving and does not accept driving is no longer possible; this participant is a heteronomous resister. Failed eye-sight and having his driver's licence withdrawn was the reason for having to stop driving. Extremely negative experiences of giving up were reported:

> Life stops the minute that you're not allowed to drive anymore ... it was just ... of a sudden it was just like you'd been gaoled. It's not, it's not ... you've got a sentence which you didn't have ... you don't have any sense of appeal. There is no appeal."(P.149)

In summary, autonomous proactives report the experience of giving up of driving as being relatively stress free, the autonomous and heteronomous reluctant accepters experience it as being somewhat difficult, and the heteronomous resister reported the more negative experiences compared with the proactives and the reluctant accepters.

With regard to the experience of giving up and post-driving cessation experiences, autonomous proactives' reactions to giving up included being happy, relieved, and more relaxed; autonomous reluctant accepters' and the heteronomous reluctant accepters' reactions to giving up driving included frustration, disappointment, and less happiness, but not necessarily unhappiness, and generally being "okay" after a short period of adjustment. The heteronomous resister reported devastation, isolation, and feeling trapped in a gaol. A pattern emerged indicating less choice in the decision to give up driving leads to more negative post cessation experiences.

4.4.2.5 Participant attributes combined

The texts indicated that participant attributes, in addition to pre-cessation experiences, may exacerbate or moderate the impacts of giving up driving. Participant P.149 - who was separated from his spouse, did not have access to another driver, lived in the wider community, and placed high importance on being a driver - described more driving cessation negative impacts than any other participant. The passion with which he spoke about how significantly his life has been adversely affected was intense. In comparison, those who were married, had access to another driver, lived in an ILU, and placed little importance on being a driver reported far fewer negative impacts associated with giving up driving and displayed the least emotional distress.

4.4.2.6 Coping and experiences of no longer driving

Ex-drivers reporting unsatisfactory consequences of giving up driving also described taking action to address those consequences (assimilative coping). All participants described multiple types of assimilative coping (cf. section 4.4.1.2, above). No obvious pattern emerged linking the number or type of assimilative coping strategy with specific post-cessation experiences.

The majority of participants described accepting most of the unsatisfactory post-cessation circumstances that were resistant to change and downgrading the importance of once valued activities that have had to be given up (accommodative coping strategies). Four of the twelve participants reported minimal use of accommodative coping. Initially, no obvious pattern emerged between low reporting of accommodative coping use and poorer post-cessation experiences. When dwelling site, thoughts and feelings regarding driving, and to some extent circumstances around giving up were taken into consideration a pattern began to emerge. The texts suggest three of the four participants experienced few discrepancies between desired and perceived life circumstances and that assimilative coping strategies have been effective in dealing with unsatisfactory post-driving cessation circumstances. Autonomy and participation levels in out-of-home activities appear to have been supported. Therefore, for as long as assimilative strategies are effective they will dominate and accommodative coping strategies will not be activated. All three participants thought driving unimportant and reported giving up driving had not been stressful: rather, it was a relief in some ways and they were happy to no longer drive. Each stated they did not feel they had lost their independence and that participation in out-of-home activities had not been adversely affected. Two of the three were autonomous and proactive in deciding to stop driving; the third acknowledged it had been inevitable and not unexpected that she would have to stop, due to failing eye-sight.

The fourth participant to report little use of accommodative strategies presented as quite different: he lives in the community, is passionate about driving, and continues to resist the idea that he can no longer drive. Giving up driving was stressful and devastating. Loss of freedom and spontaneity, increased dependence on others, reduced participation in out-of-home activities, and increased social isolation are experienced and lamented. Of all the participants in this study, only this participant reports symptoms akin to depressive symptoms: low mood, significant sense of loss, sense of hopelessness, and feeling stuck. This participant experiences significant discrepancies between desired and perceived life circumstances. Assimilative coping strategies have been effective in dealing with many of the unsatisfactory post-driving cessation circumstances. However, this participant perceives controllability as low, personal valence of the situation is high, and personal coping tendencies tend towards problem solving. Assimilative coping dominates (despite a lack of efficacy) and accommodative coping strategies are not activated. In this instance, low reporting of accommodative coping use corresponded with poorer post-cessation experiences.

4.5 Discussion

The purpose of Study 2 was to explore in greater detail the themes that emerged from the Study 1 focus group discussion, and to gather sufficient information to form a theory about the experiences of driving cessation and subsequent well-being. A comprehensive theory, which seeks to explain, interpret, and predict, post-driving cessation experiences and well-being, was developed from the texts. This is now discussed, along with the applicability and relevance of such a theory.

4.5.1 Driving Cessation Experiences

4.5.1.1 Availability of another driver

A recurring theme throughout this research and the driving cessation literature is reduced out-of-home mobility, potentially leading to social isolation (Burkhardt, 1999; Kim & Richardson, 2006; Liddle et al., 2007; Marottoli et al., 2000; Mezuk & Rebok, 2008; Peel, Westmoreland, & Steinberg, 2002). Dependence on private transportation is a primary means of achieving out-of-home mobility (This study; Australian Bureau of Statistics, 2013b; Knight et al., 2007; Peel et al., 2002). The most plausible explanation for ex-drivers' reduced level of out-of-home mobility is that they no longer drive (cf. Marottoli et al., 2000). Therefore, alternative means of transport are required to maintain pre-driving cessation levels. Many older adults do not have access to alternative modes of transport due to inaccessibility or personal preferences; often alternative transport is considered inconvenient and unacceptable (This study; Bonnel, 1999a; Davey, 2004; Peel et al., 2002). Accepting lifts from others is generally the preferred option over public transport and, when friends or family members are available to provide transport, this becomes the primary means of achieving out-of-home mobility for ex-drivers (Davey, 2004, 2007). The availability and acceptance of

lifts from others fills the transportation void left when driving is given up; such that pre-driving cessation levels of out-of-home mobility are more easily maintained (This study). One could expect ex-drivers who maintain out-of-home mobility would have quite different post-cessation experiences to those who do not. The findings from this study and previous research indicate one might predict the experience of no longer driving will be less negative for ex-drivers who have access to lifts from others compared to ex-drivers without such support to maintain out-of-home mobility levels. This likely only applies to those ex-drivers for whom accepting lifts from others does not lead to diminished sense of autonomy or increased sense of being a burden to others.

4.5.1.2 Circumstances around giving up driving

The majority of those who stop driving are proactive and autonomous in the decision making process, meaning it was their own choice to give up. Some individuals are reluctant to stop, it is generally not their idea to give up driving but they eventually accept the need to stop. A small minority resist giving up driving and after ceasing driving do not accept the situation (Adler & Rottunda, 2006; Liddle et al., 2004; RACV, 2009). Effecting choice in decision making is empowering and, along with accepting circumstances as they are, supports well-being (Brandtstädter, 1992, 2009; Deci et al., 1989). Results of the current study suggest that when the decision to stop driving is taken away from an older adult, and they are unable to accept the decision others have made, the decision phase of driving may be negatively experienced. This may influence post-driving cessation experiences. Ex-drivers, in this study, who were proactive in the decision to stop driving tended to have relatively stress free driving cessation experiences, reluctant accepters reported a number of adverse experiences, while the resister reported numerous negative post-driving cessation experiences, indicating there may be a link between the level of choice one has in the decision to give up driving and

post cessation experiences. It may be, the less choice one has in the decision to give up driving the more negative the post cessation experience. There may be a difference between actual level of choice and perceived level of choice in the decision to stop driving; as seen here and in a previous study (Buys & Carpenter, 2002a, 2002b). At the time of cessation there may be little involvement in the decision, over time ex-drivers may come to believe it was more their decision than was actually the case. The accuracy of self-evaluation likely makes little difference; when self-evaluation of the level of choice is satisfactory, then post-cessation outcomes are likely to be relatively more positive.

4.5.2 Driving Cessation and Well-Being

4.5.2.1 Autonomy, relatedness and competence

Significant negative consequences, such as diminishment of personal growth and subjective well-being, arise if autonomy, relatedness or competency needs are neglected or thwarted (Deci & Ryan, 2000). An individual's capacity to meet any one or all these needs is hindered or thwarted when life circumstances are not supportive, such as when environmental conditions are excessively controlling or challenging, or there are limited opportunities for social interaction and increased reliance on others (Deci & Ryan, 2000a, 2000b; Ryan & Deci, 2008). As revealed in this and the previous study, post-driving cessation environmental conditions may be over controlling in that there may be little choice but to give up some valued out-of-home activities when transportation is lacking; or there may be some choice when transportation is available. However, ex-drivers may have little say in where, when, or for how long out-of-home activities can be engaged in. Those who give up driving may experience environmental conditions that are not conducive to maintaining a sense of competence, autonomy and relatedness, such as when dealing with post-cessation problems is overly challenging or

when support from others leads to increased sense of being a burden on them. Post-driving cessation circumstances that hamper need satisfaction may well predict poorer well-being. There are a number of circumstances, some related to driving status (e.g., declining physical functioning) and others unrelated to driving status (e.g., the increasingly busy lifestyles of others), which present barriers to need satisfaction.

4.5.2.2 Coping

The use of assimilative and accommodative coping is associated with higher levels of well-being (Brandtstädter, 1999; Brandtstädter & Greve, 1994; Brandtstädter et al., 1993). This study and previous driving cessation research (Bonnel, 1999a; Liddle et al., 2008) reveals many ex-drivers employ numerous assimilative and accommodative coping strategies to manage undesirable post-driving cessation circumstances. While both of these modes of coping are considered adaptive and supportive of well-being, many unfavourable post-driving cessation circumstances are not open to change (e.g., returning to driving) or the costs of change outweigh benefits (e.g., taxi use). Assimilative strategies can only be applied when circumstances are open to modification and where resources are available (Brandtstädter & Renner, 1990a, 1992). As adults age, empirical research suggests accommodative strategies become increasing more important as a means of coping (Brandtstädter et al., 1993). Older ex-drivers who readily adopt accommodative coping strategies will likely experience levels of well-being comparable to older adults who continue to drive and higher levels of well-being compared with ex-drivers who have a lower tendency to adopt effective coping strategies.

4.5.3 A Theory of the Post-Cessation Phase of Driving

The theory explaining driving cessation experiences and well-being outlined below is based on the findings of this research project, thus far, and informed by previous driving cessation research. Providing the framework are Self-Determination Theory (SDT) of basic psychological needs (Deci & Ryan, 2000a, 2000b; Ryan, 2009) and the Assimilative and Accommodative Model of Coping (Brandtstädter & Renner, 1990a, 1992), both discussed in detail in Chapter 2. Certain assumptions have been made. First, driving cessation can be negative, neutral, or positive depending on, in part, ex-drivers' ability to adapt and cope with stressors. Second, after driving has ceased, those who accurately report being proactive in making the decision to give up driving are conceptually no different from those who have gone through the process of 'owning the decision' (cf. Buys & Carpenter, 2002b). Third, driving cessation subjective experiences (i.e., what it is like to no longer driver) are differentiated from well-being (e.g., depressive symptoms). And, fourth, coping strategies reportedly used are generally assumed to have been adaptive.

Figure 5, below, represents the direction of influence of level of choice in the decision to stop driving on driving cessation circumstances and experiences; the impact of driving cessation circumstances and experiences on need satisfaction; and the moderating effect of two distinct, and interrelated, coping strategies on the association between driving cessation and well-being. The evidence for a relationship between driving cessation and poorer wellbeing is robust (Fonda et al., 2001; Marottoli et al., 1997; Ragland et al., 2005; Windsor et al., 2007). This relationship may be explained in part by driving-cessation precipitating events and the adverse effects of no longer driving on the satisfaction of three basic psychological needs (see Chapter 2). Ex-drivers' interpretation of post-cessation experiences will depend in part on driving-cessation precipitating events, such as the level of choice ex-drivers had in making the

decision to stop driving. When there has been little choice in the decision to give up driving, driving-cessation experiences will be perceived as being more negative than if the ex-driver was proactive in the decision. Driving cessation circumstances will tend not to be supportive of psychological need satisfaction and this will adversely affect well-being. However, well-being will be protected when older adults find ways to adjust to no longer driving and the many and varied losses associated with driving cessation, examples have been discussed in this and the previous chapters and the driving cessation research (M. J. Bauer, Rottunda, et al., 2003; Bonnel, 1999a; Davey, 2004; Liddle et al., 2008). Should this theory receive empirical support, there is the potential for it to provide a framework for developing targeted, yet flexible, psychological interventions to protect/improve post-cessation levels of well-being.

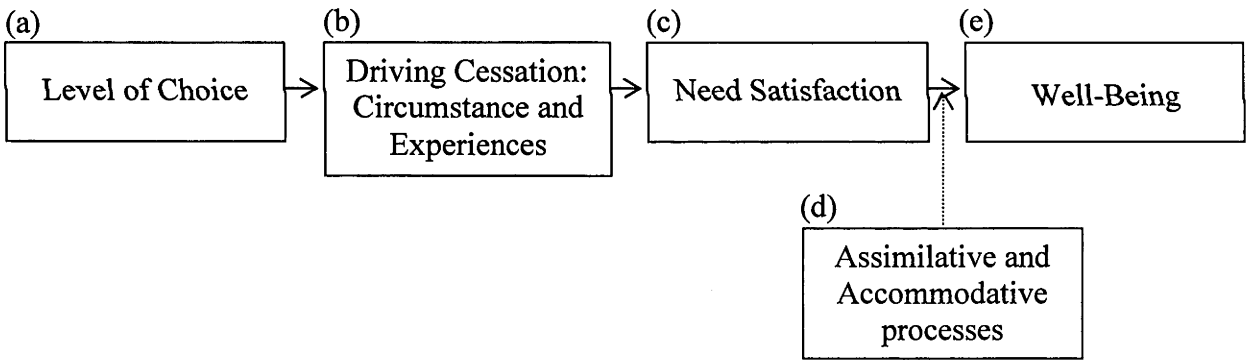

Figure 5. The influence of pre- and post-driving cessation experiences and coping on well-being.

4.5.4 Limitations of the Study

These findings are limited because of the nature and small size of the sample. Participants self-selected to participate in an interview about no longer driving. As might be expected from a self-selecting sample, most were relatively healthy and had adapted to life without driving and because of this they may be more likely to report

positive post-driving cessation experiences. Only one participant reported intensely negative experiences. This participant was the only one in the sample who had given up driving because their driver's licence was cancelled. It is perhaps not surprising that participants who had been forced to stop driving did not volunteer to participate in a study that would require them to talk about painful experiences. Despite attempts to recruit male ex-drivers, the sample was predominantly female and the experiences of a broader selection of male ex-drivers may be different from those of female ex-drivers and the one male ex-driver in the sample.

The non-representativeness of the sample, participants being mainly female, limits the transferability of the findings. The findings cannot be said to be applicable to male ex-drivers. As a consequence, the theory of driving cessation presented here (generated from the first two studies in this thesis and from published research with predominantly female samples) may not hold true among males. Ex-drivers are more likely to be female (Marottoli et al., 1997) and much of the driving cessation research takes gender into consideration in their analysis. However, males' experiences of and reactions to driving cessation may differ significantly to those of female ex-drivers. Females may be more likely to maintain social integration than males in (Mezuk & Rebok, 2008) such that they receive more support and maintain a sense of relatedness. Further, male ex-drivers experience more/worse depressive symptoms than female ex-drivers (Ragland et al., 2005). Nevertheless, the validity of the theoretical generalisations proposed here does not rely on the representativeness of the study samples. That is to say,

> The inference about the logical relationship between the two characteristics is not based upon the representativeness of the sample and therefore upon its typicality, but rather upon the plausibility or upon the logicality of the nexus between the two characteristics" (Mitchell, 1983, p. 198).

The generation of theory here is not intended to inform practice, rather the generation of theory in intended to generate further research to test the theory with a representative sample (see Chapter 5).

4.5.5 Future Research

The theory of the post-cessation phase of driving, outlined in the previous section, has yet to be tested. Future research could consider testing the following hypotheses as this would serve to check the validity and reliability of the theory. It is hypothesised that no longer driving will hinder need satisfaction. Therefore, ex-drivers will report lower need satisfaction than drivers and that lower need satisfaction will explain, in part, the association between driving cessation and poorer well-being. Furthermore, adaptive measures taken to deal with driving cessation and associated losses will be protective of well-being. Therefore, when assimilative and accommodative processes are not utilised well-being will be poor and when they are well utilised the influence of driving cessation on well-being will be reduced. The theory would benefit from some refinement and decisions need to be made how to operationalise each component prior to testing these hypotheses. The next study, reported in Chapter 5, set out to test these hypotheses.

Chapter 5

STUDY THREE

5.1 Abstract

Several studies show a link between driving cessation and depression (Fonda et al., 2001; Legh-Smith et al., 1986; Marottoli et al., 1997; Ragland et al., 2005; Windsor et al., 2007). The mechanisms underpinning the relationship are poorly understood. This study surveyed 517 older drivers and ex-drivers on experiences of giving up driving, sociodemographic and health characteristics, the availability of alternative transport, satisfaction of psychological needs, ways of coping, and well-being. The aims were: to examine the relationship between driving status and well-being and the relationship between driving cessation experiences and well-being; to explore whether pressure to cease driving predicts poorer post-cessation experiences and whether ongoing negative post-cessation experiences predict poorer well-being; whether satisfaction of psychological needs mediates the relationship between driving status and well-being; and whether coping strategies and access to alternative transport moderate the relationship between driving status and well-being. After controlling for sociodemographic and health related variables, driving status was not related to well-being. Pressure to cease driving predicted more negative post-cessation experiences (beta = .483, $t(91) = 5.10$, $p < .001$). More negative post-cessation experiences predicted poorer well-being (e.g., for depressive symptoms beta = .520, $p < .01$). Ex-drivers who self-reported flexible goal adjustment tendencies, one of two coping processes, experienced fewer depressive symptoms ($t(379) = -5.65$, $p < .001$) and more positive affect ($t(90) = 5.94$, $p < .001$). Availability of alternative transport failed to moderate the relationship between driving status and well-being. The implications of these findings are discussed.

5.2 Introduction

The majority (>70%) of the current cohort of older Australians drive (Australian Bureau of Statistics, 2013c) and have driven for 40, 50 and even 60 years. The ubiquity of driving and dependence on the car for mobility suggests giving up driving would have many and varied impacts on individuals and their lifestyle, associated with reduced mobility and loss of independence. Driving is seen as a necessity, is taken for granted (L. P. Kostyniuk & Shope, 2003; Whitehead et al., 2006) and boosts feelings of independence, self-esteem, sense of mastery, and autonomy (Carp, 1971; Ellaway et al., 2003; Hiscock et al., 2002). Car ownership and the ability to drive are associated with positive well-being (Cvitkovich & Wister, 2001) and improved perceived quality of life (Banister & Bowling, 2004; Ellaway et al., 2003; Jensen, 1999; Macintyre et al., 2001; Marmot et al., 1991; G. Davey Smith, M. J Shipley, & G Rose, 1990). This suggests older adult drivers who give up driving will lose many of the benefits associated with driving if they cannot be obtained elsewhere.

5.2.1 Driving Status and Well-Being

Several studies show a link between driving cessation and depression (Fonda et al., 2001; Legh-Smith et al., 1986; Marottoli et al., 1997; Ragland et al., 2005; Windsor et al., 2007). A clinical population study with stroke survivors found more ex-drivers were depressed compared with drivers (Legh-Smith et al., 1986) and four population based studies found an association between driving cessation and an increased risk of experiencing depressive symptoms or worsened depressive symptoms (Fonda et al., 2001; Marottoli et al., 1997; Ragland et al., 2005; Windsor et al., 2007). These studies, referred to briefly in Chapter 1, are now critiqued.

Marottoli and colleagues (1997) examined data from a longitudinal epidemiological cohort study (over a six year period) and a 1989 follow-up driving survey to determine whether or not a relationship exists between driving cessation and depressive symptoms. Data analysis focused on change in depressive symptoms, assessed by the 20-item Center for Epidemiological Studies Depression Scale (CES-D: Radloff, 1977), from pre- to post-driving cessation. Driving status was divided into three categories: still driving at the final wave of data collection, ceased driving between the first and second waves of data collection, and ceased driving prior to the first wave of data collection or never driven. Sociodemographic (i.e., age, gender, number of years of education, housing type, and marital status) and health-related factors (i.e., chronic conditions measured by the presence or absence of a number of medical conditions, activities of daily living (ADL) limitations (cf. Katz, Downs, Cash, & Grotz, 1970), cognitive impairment, and sensory impairments) thought to be associated with depressive symptoms were taken into consideration. Analysis also accounted for baseline health status and changes in health status at follow-up. Results showed increases in depressive symptoms among those who gave up driving. However, the temporal relationship between giving up driving and changes in depressive symptoms could not be determined because the exact timing of the two events was unknown.

Using data from a cohort study, Fonda and colleagues (2001) examined whether change in driving patterns (i.e., reduction and cessation), over a two year period were associated with increased risk for depressive symptoms. Sociodemographic and functioning factors, baseline health and changes in health, and spouse's driving status (thought to mitigate the effects of driving changes) were controlled for in the analysis. Driving status categorisation was consistent with that used by Marottoli and colleagues (1997). Results showed the relative risk of experiencing increased depressive symptoms ($\geq$ 2 points) assessed using the 8-item version of the CES-D was greater for

older adults who stopped driving than for those who continued to drive without restrictions. Older adults who stopped driving were at no greater risk of increased depressive symptoms than those who restricted their driving. Also noted, access to transportation through a spouse did not offset the effect of driving cessation on increased depressive symptoms (see also Legh-Smith et al., 1986), indicating the risk for increased depressive symptoms is driving cessation specific and unrelated to transportation accessibility.

Ragland and colleagues (2005) revisited the topic in a sample of older adults over a three-year period in a community setting. Cross-sectional results showed ex-drivers depression scores, assessed using the 20 item CES-D (Radloff, 1977), were on average 1.67 ($p < .005$) times higher than the scores of those who continued to drive, higher scores of depression among former drivers compared to never drivers, and higher scores of depression among never drivers compared to drivers ($p < .05$). The driving status-depressive symptoms association remained after other factors related to driving status were controlled for. Longitudinal results showed an increase in depression scores among individuals who gave up driving during the study while those who continued to drive showed almost no change.

An Australian population-based cohort study also found a link between giving up driving and depressive symptoms (Windsor et al., 2007). At baseline and follow-up, baseline drivers who stopped driving between the first (1992) and second (1994) waves of data collection had higher depressive scores than those who were drivers throughout the study ($p < .05$). Among those who stopped driving, living alone and poorer self-rated health accounted for the higher depressive scores at baseline but not at follow-up. The relationship between driving cessation and depressive symptoms at follow-up was partially explained by externally oriented expectancy of control. This may that indicate the environment post-cessation was experienced as overly controlling. The association

between driving cessation and increased depressive symptoms may then be explained by loss of control (discussed below & cf. Deci & Ryan, 2000a; Deci & Ryan, 2000b; Windsor et al., 2007).

Previous research shows that the association between driving cessation and depressive symptoms three to five years post-cessation is robust. The mechanisms that link driving cessation and worsened depressive symptoms are not well understood. Decreased sense of control among older ex-drivers may partly explain increased depressive symptoms (Windsor et al., 2007). This suggests decreased sense of autonomy, and possibly diminished sense of competency and/or relatedness (discussed in Section 4.2.3) may be mechanism(s) that links driving cessation to poorer well-being.

5.2.2 Driving Cessation Pressures and Experiences

Factors precipitating driving cessation are likely to affect how drivers interpret their experiences of giving up driving in the same way that precipitating circumstances influence behaviour (M. M. Baltes & Skinner, 1983). How the decision to stop driving is made may therefore affect the post-cessation experience. The decision to stop driving is made by the majority of older adults on their own or on the advice of family, friends, or health professionals; with a small percentage have little or no say in the decision (Liddle et al., 2008; RACV, 2009). Those forced to give up driving due to driving licence confiscation experience shock, embarrassment, a loss of self-esteem, anger and helplessness (J. E. Johnson, 1999) and some continue to drive for some time against medical advice (Persson, 1993) and while not having a licence to drive (Legh-Snith 1986). Situations where there is a lack of control over the decision to give up driving and a desire to keep driving diminish the individual's sense of autonomy and well-being (Kunzmann et al., 2002). The pressure to cease driving will end once driving ceases.

Experiences of no longer driving, however, will be ongoing and negative experiences may have a detrimental impact on well-being.

5.2.3 Psychological Need Satisfaction

Decreased sense of competency, autonomy and/or relatedness may be mechanism(s) that link driving cessation to poorer well-being. Competency, autonomy and relatedness are basic psychological needs required for well-being (Deci & Ryan, 2000a, 2000b); the impact of driving cessation on attainment of these needs is explored in this study. Self-Determination theory (SDT), discussed in Chapter 2, states that the satisfaction of competence, autonomy, and relatedness is necessary and sufficient for psychological well-being and that need satisfaction varies depending on personal and social circumstances (Deci & Ryan, 2000b; Ryan & Deci, 2008). When circumstances are not supportive of the attainment of these needs, poorer well-being is experienced (Deci & Ryan, 2000a, 2000b). Circumstances that are overly challenging pose a threat to competence need satisfaction. Circumstances that are overly controlling pose a threat to autonomy need satisfaction. Circumstances within a relationship that are overly controlling and/or overly challenging pose a threat to relatedness need satisfaction (La Guardia et al., 2000; Lynch et al., 2009).

In the current study, in accord with the theory of the post-cessation phase of driving postulated in the previous chapter, it was hypothesised that no longer driving likely presents barriers that restrict or thwart individual's need satisfaction, explaining a portion of the driving cessation-depression relationship. This hypothesis is based on research findings where decreased sense of control among older ex-drivers partly explains increased depressive symptoms (Windsor et al., 2007); and among studies describing older adults reports of feeling less able to perform routine tasks such as

shopping, as a result of no longer driving, and a loss of independence, freedom, spontaneity, and loneliness (M. J. Bauer, Rottunda, et al., 2003; Bonnel, 1999a).

5.2.4 Coping and Driving Cessation

Not all ex-drivers experience increased depressive symptoms. Where increases in depressive symptoms are experienced, the magnitude varies and appears to be time-limited (Fonda et al., 2001) indicating there could be multiple factors that buffer the negative impact of driving cessation stressors on well-being.

5.2.4.1 Assimilative and Accommodative coping

The coping literature shows adaptive modes of coping in response to life stressors are associated with higher levels of well-being. The dual process model of coping, the Assimilative and Accommodative Model of Coping (Brandtstädter & Renner, 1990a; Brandtstädter & Rothermund, 2002), discussed in Chapter 2, describes adaptive modes of coping that are associated with well-being (Brandtstädter, 1999; Brandtstädter & Greve, 1994; Brandtstädter et al., 1993). Assimilative and accommodative processes are ways of solving or neutralising discrepancies between actual and desired states of being (Brandtstädter & Renner, 1990a, 1992; Rothermund & Brandtstadter, 2003). Both processes are activated by perceived discrepancies between desired and perceived circumstances and both tend to reduce such discrepancies (Brandtstädter & Rothermund, 2002). Assimilative processes are deliberate reasoned action, which involve persistent effort to avoid or correct actual or anticipated losses through actively seeking a solution to the problem. They tend to dominate the initial stages of a discrete coping episode. Accommodative processes entail a readiness to switch from ineffectual action to more effective means for goal attainment and require a capability to disengage from goals that are not attainable (Brandtstädter, 2009;

Brandtstädter & Renner, 1990a, 1992). They involve modification of thoughts and valuations and outcomes include adjustment of aspirations, revision of valued priorities and meaning, acceptance, disengagement from barren preferences and goals, and the focussing of assimilative efforts toward new, feasible goals. Accommodative processes are activated when assimilative processes become ineffective. This empirically supported theory (see Section 2.5.1.3) indicates that the use of both assimilative and accommodative coping strategies predict lower psychological distress. Therefore, it was expected that the use of assimilative and accommodative coping strategies would moderate the relationship between driving status and depressive symptoms. Specifically, it was hypothesised that ex-drivers who reported greater use of assimilation and accommodation would report lower levels of depressive symptoms relative to ex-drivers who reported less use of these coping methods.

5.2.4.2 Alternative transportation

Those who give up driving must find alternative modes of transportation if they are to continue to participate in instrumental activities of daily living (L. P. Kostyniuk & Shope, 2003). Access to private and public transportation is associated with well-being (Cutler, 1972; Fonda et al., 2001), however, there is no evidence to suggest meeting ones' transportation needs (i.e., through a spouse that drives or public transportation) ameliorates the relationship between driving cessation and depressive symptoms (Fonda et al., 2001). One study assessed driving status, access to car transport from within and from outside one's own household, and depressive symptoms; however the relationship between private and public transportation and depressive symptoms was not evaluated (Legh-Smith et al., 1986). Another study assessed driving status, spouse's driving status (but not the availability of other car drivers), and depressive symptoms and found the probability of worsening depressive symptoms was no different between ex-drivers who had a spouse who drove and those who did not

(Fonda et al., 2001). This suggests that having a spouse who drives does not offset the effects of driving cessation on worsening depressive symptoms. It may be those without access to a spouse who drives had access to others who drive, reducing the variability in depressive symptom scores. Also, it is unclear whether having access to car transportation, through anyone else who drives, offsets the effect of driving cessation on increased depressive symptoms. Expanding access to private transportation beyond the availability of a spouse who drives (e.g., to incorporate the availability of any other driver) may find access to private transportation more broadly offsets the effect of driving cessation on increased depressive symptoms. In addition, access to public transport may mitigate the relationship between driving cessation and depressive symptoms.

The effect of alternative modes of transportation on the relationship between driving status and well-being is explored in this study. The availability of alternative transportation is operationalized as (a) access to anyone who drives and (b) access to public transport. Access to any other driver versus spouse's driving status likely provides more opportunities to meet the needs that were once met by driving oneself, offsetting some of the negative effect of driving cessation on well-being. Therefore, it was thought that having access to any other driver might moderate the relationship between driving status and well-being. It is unknown whether having access to public transportation offsets the effect of driving cessation on increased depressive symptoms. Access to public transportation provides opportunities for maintaining mobility and mobility is associated with a better quality of life (Metz, 2000); therefore access to public transportation might moderate the relationship between driving status and well-being.

5.2.5 Well-Being and Driving Cessation

The predominantly 'negative outcomes focus' of coping research has been criticised for slowing the progress of research in this area. There is a small and growing body of research indicating that elevated levels of depressive symptoms during periods of chronic stress do not preclude experiencing positive affect (Folkman & Moskowitz, 2000). This criticism could also be levelled at the driving cessation literature. Research has focused almost exclusively on negative outcomes, such as reduced out-of-home activity, poorer physical health, increased depressive symptoms, and mortality (Edwards, Lunsman, et al., 2009; Edwards, Perkins, et al., 2009; E. E. Freeman et al., 2006; Marottoli et al., 1997, 2000). Positive outcomes, such as Satisfaction with Life and Positive Affect, in addition to negative outcomes are examined in this study, to better understand the relationship between driving cessation and well-being. To address the criticisms of any one single approach to defining well-being (see Chapter Two, Section 2.6) this research project takes into consideration the immediacy of positive and negative affective state (feelings of happiness and the absence of feelings of sadness), self-evaluation of fit between aspirations and life circumstances (satisfaction with life), and psychological well-being (the absence of depressive symptoms). Well-being is assessed using measures of depressive symptoms (Radloff, 1977), satisfaction with life (Diener et al., 1985), and positive affect and negative affect (Watson, Clark, & Tellegen, 1988).

5.2.6 Thesis Hypotheses

The current study draws together the findings of the driving cessation research and sets out to test a number of hypotheses regarding the relationship between driving status and well-being. Factors thought to contribute to an understanding of that relationship and the psychological and environmental factors that may have a protective

effect on the relationship, discussed in previous chapters and above and represented in figure 5, reproduced again below, are examined.

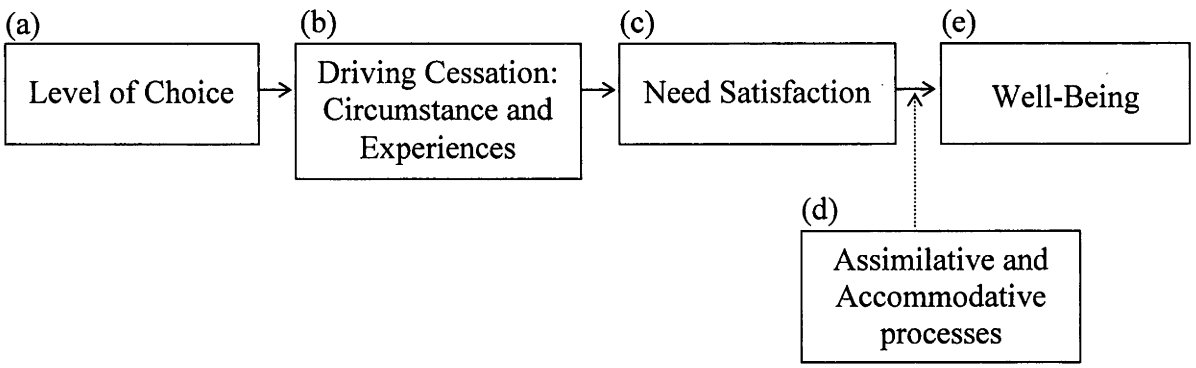

Figure 5. The influence of pre- and post-driving cessation experiences and coping on well-being (Reproduced from Section 4.5.3, above).

In line with the model displayed in Figure 5, the following hypotheses were tested:

1 When sociodemographic and health characteristics are controlled for, driving status would predict level of well-being; specifically, being an ex-driver would predict poorer well-being: lower positive affect and life satisfaction and higher negative affect and depressive symptoms.

2 (a) Among ex-drivers, pressure to give up driving would be associated with post-driving cessation experiences, specifically, more pressure felt to cease driving will be associated with more negative post-driving cessation experiences.

2 (b) Among ex-drivers, more negative post-driving cessation experiences will predict poorer well-being.

3 Given the potential threat of driving cessation to need satisfaction, it is expected that poorer SDT need satisfaction will act as a mechanism through which driving cessation negatively affects well-being. That is,need satisfaction will mediate the relationship between driving status and well-

being.

4 Since psychological resources lessen the negative impact of stressors on well-being, older ex-drivers who report a tendency to use Assimilative and Accommodative coping strategies would experience higher levels of well-being relative to ex-drivers who report lower levels of Assimilative and Accommodative coping

In addition, exploratory analysis was used to assess the ability of access to alternative transport (access to any person who drives and public transport access, separately) to see if they moderate the strength of the relationship between driving status and well-being.

5.3 Method

5.3.1 Participants

In total, 517 older adults participated in this study, of which 107 participants (20.7%) were ex-drivers and the remaining were current drivers. Ages ranged from 65 to 97 years. Participant characteristics are displayed in Table 5. Ex-drivers were moderately older than drivers, t (513) = 6.41, $p < .001$, 95% CI [3.68, 6.97], ($\eta^2 = .07$). They reported slightly poorer physical health, t (502) = 2.70, $p = .008$, 95% CI [.11, .68], ($\eta^2 = .01$) and slightly poorer physical functioning, t (510) = 5.63, $p < .001$, 95% CI [.78, 1.62], ($\eta^2 = .06$). Drivers were more likely to be male, married, and have more education than ex-drivers.

Table 5

Participant Characteristics by Driving Status

Variable	Ex-Drivers (n=105)		Drivers (n=402)		
Age	78.15 (7.93)[a]		72.83 (6.46)		
Physical Health	1.13 (1.39)[a]		.74 (1.01)		
ADLs[b]	1.65 (2.13)[a]		.45 (.97)		
	Freq.	*%*	Freq.	*%*	*p* Value[c]
Gender (Female)	67	*62.6*	178	*43.4*	.001
Marital Status					
Married/de-facto	39	*35.5*	255	*62.2*	.000
Separated/Divorced	23	*21.5*	67	*16.3*	
Widowed	35	*32.7*	72	*17.6*	
Never married	11	*10.3*	16	*03.9*	
Education (post school)					
None	27	*25.2*	69	*16.9*	.048
Trade/Technical	22	*20.6*	106	*25.9*	
College/University	58	*54.2*	234	*57.2*	
No financial stress	90	*84.1*	338	*82.4*	.791
Access to driver	65	*61.9*	289	*70.5*	.115
Access to public transport	81	*76.4*	304	*74.1*	.752

[a] Mean (SD)
[b] Activities of Daily Living (ADLs)
[c] Chi-square test for independence

5.3.2 Procedure

Participants were invited to participate in a study about the impacts of driving cessation. Recruitment notices were displayed in medical centres and printed media, and posted electronically to National Seniors Association members aged 65 years and above. Interviews were given to local ABC Radio stations in all Australian states and territories (except the Northern Territory) and talks were given to various seniors groups in the Australian National Capital. At the end of each interview/talk, older adults were invited to contact this researcher if they wanted more information or to participate in the current study. Individuals were provided with information about the study (See Appendix J: Study Information Sheet). Participation was voluntary and informed consent was inferred from completion of the questionnaire. No incentives (financial or otherwise) were provided, and participants were free to withdraw from the study at any time without penalty.

Data were collected using a battery of self-report inventories to form a questionnaire (see Appendix K: Ex-Driver Questionnaire). Only results concerned with driving-cessation related issues, psychological need satisfaction, coping tendencies, and alternative means of transportation are reported in this chapter. The questionnaire was available online via the Qualtrics online survey platform (77 completed by ex-drivers and 366 drivers) or in paper format mailed out on request (30 completed by ex-drivers and 44 by drivers). Qualtrics software indicates completion took approximately 40 minutes.

5.3.3 Measures

5.3.3.1 Demographics

Demographic items were developed by this researcher in consultation with colleagues and the supervisory panel. Participants identified their gender by marking a box next to *male* (1) or marking a box next to *female* (2). Age was requested in years and months and participants typed/wrote their response into a text box. Marital status was assessed by asking "What is your current marital status?" with the following options to choose from: *married/de-facto* (1), *separated/divorced* (2), *widowed* (3), or *never married* (4). Regarding education, participants were asked whether they had completed any courses after school; response options included *No* (1), *Yes trade/technical* (2), or *Yes - college/university* (3).

Two items taken from Wrosch, Heckhausen and Lachman (Wrosch, 2000) were used to assess financial stress. Participants were asked whether over the past 12 months they had (a) enough money to meet their needs and (b) difficulties paying the monthly bills. An indication of financial problems was if participants either responded 'no' (scored 1) to having enough money to meet their needs or 'yes' (scored 1) they had difficulties paying the monthly bills, over the past 12 months. A summed score of 1 or 2 indicated financial stress; a score of zero indicated no financial stress.

5.3.3.2 Driving and driving cessation

Driving status was assessed by using a single item. Participants were first informed that "For the purposes of this study, by ex-driver we mean *'someone who has not driven a car within the last month and someone who would not drive today if they needed to'*. This is a slight variation on the definition of ex-driver used in the previous two studies, which defined ex-drivers as those "who have stopped driving for at least

one month and would not drive again", to bring the definition in line with previous driving cessation studies (see Marottoli et al., 1997) to facilitate cross study comparisons. Participants were then asked to identify their driving status by marking a box next to *ex-driver* (0) or *driver* (1). Time since driving cessation was requested in years and months from ex-drivers and participants provided their response into a text box.

5.3.3.3 Access to alternative transport

Access to a driver was measured by a single item which asked participants if they had access to a driver (other than themselves if they were current drivers). Access to public transport was measured by a single item which asked participants if they had access to public transport. Response options were 'yes' (scored as 1) or 'no' (scored as zero). These items were developed by this researcher in consultation with colleagues and the supervisory panel.

5.3.3.4 Pressure and Experiences of giving up driving

Desire, level of choice, and external pressure exerted by others comprise the overall pressure participants felt to give up driving. Pressure to give up driving was assessed using an adapted version of the Pressure to Move Scale (Smider, Essex, & Ryff, 1996). The Pressure to Move Scale consists of nine items. The sum of the items reflects the extent to which participants felt they were being pushed or pressured or urged by family, by others, or by circumstances to move. This measure was adapted to tap into the pressure ex-drivers felt to give up driving rather than pressure to move, for example, 'To what extent has your doctor or other professionals urged you to move?' was reworded to "My doctor/other professionals urged me to give up driving". Also, the response scale was changed from a 6-point scale, from (1) Not at all to (6) Very

much, to a 7-point scale, from (1) *Strongly agree* to (7) *Strongly disagree*. This change was made because the original instrument was designed to be administered before participants moved whereas in this study the instrument was administered after the event. Items were reverse coded as necessary and high scores indicate greater pressure to give up driving. The reliability of the scale in the current study was adequate (Chronbach's α =.72).

Ex-drivers were asked about their post-driving cessation experiences (6 items). Participants were asked to indicate the extent to which they had an experience, for example 'any difficulties once you stopped driving', from (1) *Not at all* to (6) *Very much*. Items 5 and 6 were reverse coded. High scores indicate more negative post-driving cessation experiences. The items were developed for the current study, the items regarding making plans for giving up driving and the benefits of driving cessation were not included in the final analysis. The inter-item correlation for the 'plans for giving up driving' item was negative, indicating this item may not be measuring the same underlying characteristic as the other items in the scale. A technical problem with data collection resulted in a substantial number of 'benefits of driving cessation' responses that could not be retrieved for analysis. Internal consistency of the scale was improved from a Cronbach's alpha of .72 to .86 with the removal of these items.

5.3.3.5 Physical health and functioning

Health status was assessed by asking participants to report on ten physician-diagnosed chronic conditions such as asthma and diabetes. A larger number of self-reported physician-diagnosed conditions produced a higher score, which indicated poorer health. See Ragland, Satariano, and MacLeod for a full list of conditions (Ragland et al., 2005).

Physical functioning was assessed using the activities of daily living (ADL) section of Part A of the Older Americans' Resources and Services Multidimensional

Functional Assessment Questionnaire (OMFAQ) (Fillenbaum & Smyer, 1981). Functional ability in both instrumental (7 items) and physical (6 items) ADLs were assessed by asking participants to report whether they could do the activities without any help at all, if they need some help to do them, or if they could not do them at all. For example, "I can prepare my own meals (0) *without help*, (1) *with some help*, and (2) *I'm not able to prepare my own meals*". Possible scores on each item range from (0) excellent functioning to (2) totally impaired. Validity of the OMFAQ section of ADL functioning was assessed by Fillenbaum and Smyer by comparing OMFAQ ratings to ratings by physical therapists. Spearman's rank order correlation between the OMFAQ ADLs ratings and criterion rating was a statistically significant .89. The interrater reliability, from 11 raters and 30 OMFAQ participants, produced a statistically significant intraclass correlation coefficient of .87 (Fillenbaum & Smyer, 1981). In the current study, two instrumental ADL items were excluded from the analysis due to conceptual overlap between those items and the driving status variable; excluded items were "I can get to places out of walking distance" and "(with transport) I can go shopping for groceries or clothes". The remaining items mirrored the basic ADL items used in previous driving cessation studies (see Marottoli et al., 1997).

5.3.3.6 Psychological need satisfaction

The 21-item Basic Need Satisfaction in Life Scale based on the theory of human needs and self-determination (Deci & Ryan, 2000b) was used to assess participants' sense of competence, autonomy, and relatedness. The scale purports to measure the extent to which each need is satisfied in general in life. Participants indicated on a scale, from (1) *Not at all true* to (7) *Very true*, the extent to which the psychological needs were generally satisfied in their life. The Basic Need Satisfaction in Life Scale consists of three subscales: competence (6 items), autonomy (7 items), and relatedness (8 items). Examples of items are, "I often do not feel very capable" (competence,

reversed), "I feel like I can decide for myself how to live my life" (autonomy), and "I really like the people I interact with" (relatedness). Higher scores indicate higher need satisfaction. Chronbach's α for each subscale in the current study was .71, .69, and .86, respectively.

5.3.3.7 Assimilative and Accommodative coping tendencies

Assimilative and accommodative modes of coping were measured by The Tenacious Goal Pursuit Scale (TGP) and The Flexible Goal Adjustment Scale (FGA), respectively. Each scale consists of 15 items. Participants were asked to indicate on a 5-point scale, from (1) *Strongly disagree* to (5) *Strongly agree*, the extent to which they disagree or agree with a series of statements such as, "When I run up against overwhelming obstacles, I prefer to look for a new goal" (TGP reversed) and "I usually find something positive even in giving up something I cherish" (FGA). High scores on these scales indicate high assimilative tenacity and high accommodative flexibility, respectively. Both scales have satisfactory internal consistency: Chronbach's α = .80 and .82 (TGP scale) and Chronbach's α = .83 and .74 (FGA scale) and appear to be independent from one-another (Brandtstädter & Renner, 1990a; Mueller & Kim, 2004). In the current study, the Chronbach's alpha coefficients were .83 (TGP Scale) and .87 (FGA Scale).

5.3.3.8 Depressive symptoms

To allow for comparisons with other studies in the area of driving cessation (such as Ragland et al., 2005), the 20-item Centre for Epidemiologic Studies Depression Scale (CES-D: Radloff, 1977) was used to measure depressive symptomology in the current study. The CES-D is a measure of current levels (over the past week) of depressive symptomology, with an emphasis on depressed mood but also including feelings of guilt and worthlessness, feelings of helplessness and hopelessness,

psychomotor retardation, loss of appetite, and sleep disturbance. The scale was not designed as a clinical diagnostic tool, however, an individual with a high average score may be interpreted to be at risk of depression or of needing treatment. Participants were asked to report on the occurrences of feelings, behaviours, or both on a four point scale from (0) *Rarely or none of the time (<1 day)* to (3) *Most or all of the time (5-7 days).* Scores, the sum of the 20 weighted items based on frequency of occurrence, can range from zero to 60. Higher scores are indicative of more depressive symptoms. The CES-D has satisfactory internal consistency (Chronbach's $\alpha = .85$ in the general population and .90 in psychiatric settings), acceptable test-retest stability ($r = .67$ over a two week period), good concurrent validity (by nurse-clinician, $r = .56$; and self-report criteria, $R = .60$ and above), and good construct validity. In the current study, the Chronbach's alpha coefficient was .85 (Radloff, 1977).

5.3.3.9 Satisfaction with life

The cognitive component of well-being (F. M. Andrews & Withey, 1976; Diener et al., 1985) was assessed using the 5-item Satisfaction with Life Scale (SWLS) (Diener et al., 1985). The scale was designed to assess one's evaluative judgement of one's overall satisfaction with life by using one's own criteria. Participants were asked to rate their level of agreement with statements about their satisfaction with life on a 7-point scale, from (1) *Strongly disagree* to (7) *Strongly agree*. Scores may range from 5 to 35; a score of 20 represents a neutral point on the scale, and higher scores indicate higher satisfaction with life. Internal consistency is satisfactory (Chronbach's $\alpha = .87$) and two-month test-retest reliability is acceptable ($r = .87$). A number of other studies have reported internal consistency coefficient alphas ranging from .79 to .89 and two-month test-retest correlations from .64 to .82 (Pavot & Diener, 1993). Good construct validity indicates that the SWLS may be sensitive to the impact of recent negative life events that likely deviate negatively from participants' standards for life. Convergence

with related measures is modest (r = .28 to .82, informant reports and the Fordyce Global Scale, respectively), and divergent validity is strong (r = -.72 between the SWLS and the Beck Depression Scale) (Pavot & Diener, 1993). In the current study, the Chronbach alpha coefficient was .88 and divergent validity was moderate (r = -.49 between the SWLS and the CES-D).

5.3.3.10 Positive and negative affect

The affective components of well-being (F. M. Andrews & Withey, 1976; Diener et al., 1985), positive affect and negative affect, were assessed using the Positive and Negative Affect Schedule (PANAS) (Watson et al., 1988). The PANAS is a relatively simple and conceptually straightforward measure of mood. It consists of two, relatively independent, 10-item scales. One scale measures positive affect (the PA Scale), with items such as enthusiastic and proud and the other scale measures negative affect (the NA Scale) with items such as distressed and hostile. Participants were asked to rate how often they had experienced the 20 mood descriptors, over the past 30 days, on a 5-point scale, from (1) *Very slightly, or not at all* to (5) *Very much.* Based on the time instruction "Past few weeks" the psychometric properties of the PANAS are satisfactory. Internal consistency is satisfactory (Chronbach's α = .87 on both scales). Correlations between the two scales is low (r = -.22). Test-retest reliability indicates an acceptable level of stability (PA, r = .58, and NA, r = .48). Each scale is judged to have good convergent and divergent validity (r = .92 and r = -.18, respectively) (Watson et al., 1988).

The emotions listed in the PANAS Scales, such as "excited" (PA Scale) and "Upset" (NA Scale) are high arousal states. Given the age range of the sample, in addition to the PANAS and using the same rating scale, in the current study participants were asked to also rate how often they had experienced six low arousal emotions, three positive (*happy*, *calm*, and *content*) and three negative (*tense*, *sad*, and *disappointed*)

(cf. Charles & Carstensen, 2010). Chronbach's alpha was .92 on the PA scale, when the three low arousal positive affect items were included $\alpha = .93$. On the NA scale Chronbach's alpha was .85, with the three low arousal negative affect items $\alpha = .88$. Correlations between the two scales, which included the low arousal items, was moderate ($r = -.45$). The scale had good construct validity, with two readily interpretable factors: positive emotions and negative emotions.

5.3.4 Statistical Analysis and Hypotheses

IBM SPSS Statistics 20 was used to conduct the statistical analysis. Participant characteristics of the two groups (coded dichotomously: ex-drivers = 0; driver = 1) were compared using chi-square tests for categorical variables and independent samples T Tests for continuous variables. Sociodemographic and health variables associated with driving cessation and well-being consisted of: age, gender, marital status, education level, physical functioning, physical health, and financial stress. Prior to hypothesis testing, three of the categorical sociodemographic variables were collapsed into dichotomous variables: marital status (not married = 0; married = 1), level of education (no education completed after school = 0; education completed after school = 1), and financial stress (no financial stress = 0; financial stress = 1). Well-being variables consisted of depressive symptoms, satisfaction with life, and positive and negative affect. A difference between scores of $p < .05$ (two-tailed test) was generally considered statistically significant. Preliminary analyses were conducted to ensure no violation of the assumptions of normality, linearity, and homoscedasticity[4]. Multicollinearity diagnostics were assessed and were within an acceptable range.

[4] Well-being total scores were square-root transformed to improve the distribution so as to better meet statistical assumptions. There was no significant difference between the regression analysis results for the dependent variables prior to transformation compared with the transformed dependent variables. Therefore, the original total well-being scores were used in the analysis to facilitate interpretation of the results.

Predictor variables used to construct cross-product interaction terms were mean centred (e.g., TGP and FGA; Aiken & West, 1991).

5.3.4.1 Hypothesis One: Driving status and well-being

It was expected that, when sociodemographic and health characteristics are controlled for, driving status would predict level of well-being; specifically, being an ex-driver would predict poorer well-being: lower positive affect and life satisfaction and higher negative affect and depressive symptoms. Hierarchical regression was used to test the direct effect (τ) of driving status (DS) on the four measures of well-being (WB) (i.e., Depressive symptoms, Satisfaction with life, Positive Affect, and Negative affect) (see Figure 6).

To first account for the variance in well-being explained by sociodemographic and health variables these variables were entered into each regression analysis at the first step. The driving status variable was entered at the second step to evaluate the unique contribution of driving cessation to the prediction of well-being.

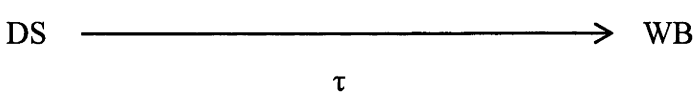

Figure 6. Hypothesis One: Driving status (DS) will predict well-being (WB).

5.3.4.2 Hypothesis Two: Pressure, driving experiences and well-being

It was hypothesised that among ex-drivers (a) pressure to give up driving would be associated with post-driving cessation experiences, specifically, more pressure felt to cease driving will be associated with more negative post-driving cessation experiences, and (b) more negative post-driving cessation experiences will predict poorer well-being

(see Figure 7). Hierarchical regression, with only ex-driver data, was used to test the direct effect (τ) of pressure felt to give up driving (Pressure) on post-driving cessation experiences (Experiences), and the direct effect of post-driving cessation experiences on the four measures of well-being (WB).

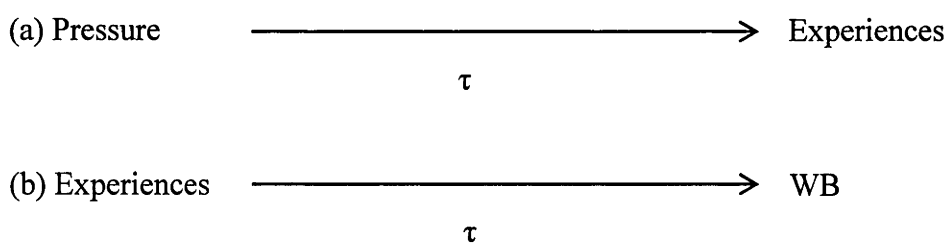

Figure 7. Hypothesis Two: (a) Pressure felt to give up driving (Pressure) will predict driving cessation experiences (Experiences), and (b) Experiences will predict well-being (WB).

To first account for the variance in well-being explained by sociodemographic and health variables these variables were entered into each regression analysis at the first step. In the first equation, (a) the pressure to cease driving variable was entered at the second step to evaluate the unique contribution of this variable to the prediction of post-driving cessation experiences; in the second equation (b) the post-driving cessation experiences variable was entered at the second step to evaluate the unique contribution of this variable to the prediction of well-being.

5.3.4.3 Hypothesis Three: SDT need satisfaction

It was hypothesised no longer driving presents a barrier that impedes attempts to satisfy one's psychological needs, which in turn results in poorer well-being (WB). SDT need satisfaction, it is thought, will mediate the relationship between driving status (DS) and well-being (WB) (Figure 8).

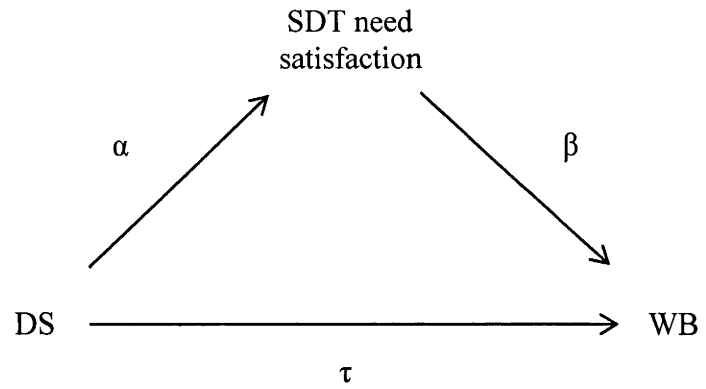

Figure 8. Hypothesis Three: SDT need satisfaction will mediate the relationship between driving status (DS) and well-being (WB).

5.3.4.4 Hypothesis Four: Coping

It was hypothesised here that older ex-drivers who report a tendency to use TGP and FGA coping strategies would experience higher levels of well-being relative to ex-drivers who report lower levels of TGP and FGA coping. Specifically:

- Under **HIGH** TGP and FGA: DS → Well-being = ***non-significant***
- Under **LOW** TGP and FGA: DS → Well-being = ***significant***

Thus, DS will be significantly related to well-being when ex-drivers report low TGP (Assimilative) and FGA (Accommodative) coping tendencies.

Hierarchical regression was used to assess whether TGP and FGA moderate the relationship between driving status (DS) and well-being (WB) (see Figure 9). Driving status was entered into each regression analysis at the first step. Sociodemographic and health variables were entered at Step 2. TGP and FGA were entered at Step 3, to evaluate their direct associations with well-being. Finally, the interaction between driving status and TGP (TGP Interaction) and the interaction between driving status and FGA (FGA Interaction) were entered at Step 4.

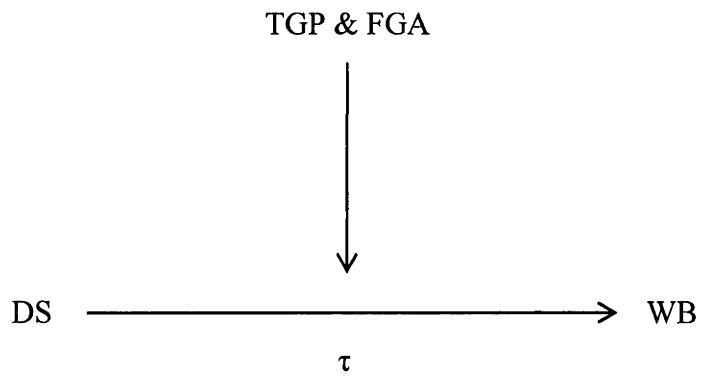

Figure 9. Hypothesis Four: Tenacious Goal Pursuit (TGP) and Flexible Goal Adjustment (FGA) will moderate the relationship between driving status (DS) and well-being (WB).

To explore the nature of the interaction, coping tendency scores for four hypothetical participants were calculated and plotted on a graph for each of the well-being measures. High TGP scores for an ex-driver and for a driver were calculated by summing the group mean TGP score with one standard deviation of the group mean TGP score. Low TGP scores for an ex-driver and a driver were calculated by subtracting one standard deviation from the group mean TGP score. Finally, hierarchical regression was used to assess the significance of the coping - well-being slope for ex-drivers and drivers separately, for each well-being measure separately. The main effect for DS was entered into each model at Step 1. Sociodemographic and health variables were entered at Step 2, and the main effects for TGP and FGA were entered at Step 3.

5.3.4.5 Exploratory analysis: Access to alternative transport

Hierarchical regression was used to assess the ability of access to alternative transport (access to any person who drives: Driver Access, and public transport access: Transport Access, separately) to see if they moderate the strength of the relationship between driving status (DS) and well-being (WB) (similar to Figure 9, above). Driving

status was entered into each regression analysis at the first step. Sociodemographic and health variables were entered into each model at step 2. The Driver Access or Transport Access variables were entered at Step 4, to evaluate their unique contribution to the model. And, finally, the interaction between driving status and Driver Access (Driver Access Interaction) or the interaction between driving status and Transport Access (Transport Interaction) were entered at Step 5. The procedure to explore the nature of the interactions and assess the significance of the Driver Access and Transport Access - well-being measure slopes for ex-drivers and drivers separately is outlined above.

5.4 Results

The questionnaire results for each research question and corresponding hypotheses are reported under four main headings, with the results of each well-being measure treated separately. Under the first heading the question of how well driving status is associated with well-being is addressed. The second shows the extent to which driving cessation precipitating factors (i.e., the pressure ex-drivers felt to cease driving) predict driving cessation experiences and the extent to which ex-drivers' experiences of driving cessation predict well-being. The third refers to the undermining of SDT needs in relation to driving cessation, and the fourth shows the extent to which coping and the availability of alternative transportation mediate that relationship.

5.4.1 Driving Status and Well-Being

The first hypothesis states: when sociodemographic and health characteristics are controlled for, driving status would predict level of well-being; specifically, being an ex-driver would predict poorer well-being: lower positive affect and life satisfaction and higher negative affect and depressive symptoms. This was tested using four measures of well-being: depressive symptoms, satisfaction with life, positive affect, and negative affect. Table 6 displays the unadjusted correlations between driving cessation and the well-being variables.

Table 6

Pearson Correlations Between Driving Status and Well-Being

		Depressive Symptoms	Satisfaction with Life	Positive Affect	Negative Affect
Driving status	Correlation	-.163**	.076	.163**	-.013
	Sig. (2-tailed)	.000**	.086	.000**	.76
	N	502**	509	504**	505

** Correlation is significant at the 0.001 level (2-tailed).

The small associations between driving status and depressive symptoms and between driving status and positive affect were statistically significant, indicating ex-

drivers report a greater number of/more severe depressive symptoms and lower positive affect than drivers. The associations between driving status and the remaining well-being measures were non-significant. Hierarchical regression was used to determine if information regarding driving status improved prediction of well-being scores beyond that afforded by sociodemographic and health differences. Table 7 reports unstandardized coefficients (B), standardised coefficients (β), semi-partial correlations (sr^2), R, R^2, and adjusted R^2 after entry of all IVs. Only those covariates that were significant in the models have been reported. The results for each measure of well-being are reported below.

Depressive symptoms: At step 1, sociodemographic and health related variables explained 13% of the variance in depressive symptom scores, $R^2 = .123$, $F(7,481) = 9.61$, $p < .001$. At the subsequent and final step, addition of driving status failed to result in a statistically significant change in the model, $\Delta F(1,480) = 1.44$, $p = .23$. In the final model, marital status (MS), $t(480) = -2.95$, $p = .003$, and ADLs $t(480) = 5.67$, $p < .001$, were statistically significant indicating participants who are married, with fewer ADL restrictions, reported fewer/less severe depressive symptoms relative to those who were unmarried and those with more ADL restrictions.

Satisfaction with life: Sociodemographic and health related variables, entered at Step 1, explained 13% of the variance in satisfaction with life scores, $R^2 = .125$, $F(7,488) = 9.92$, $p < .001$. Addition of driving status failed to result in a statistically significant change in the model, $\Delta F(1,487) = .00$, $p = .99$. In the final model, age, $t(487) = 3.10$, $p = .002$, MS, $t(487) = 2.51$, $p = .013$, ADLs, $t(487) = -5.82$, $p < .001$, and financial stress, $t(487) = -3.53$, $p < .001$, were statistically significant; those participants who were older, married, with fewer ADL restrictions and no financial stress reported higher satisfaction with life relative to those who were younger, unmarried, had more ADL restrictions and reported financial stress.

Table 7

Summary of Multiple Regression Analysis for the Impact of Driving Status on Well-Being

Variables	B	β	Sr^2 (unique)	R	R^2	Adj R^2
Depressive Symptoms				.354	.125	.111
MS	-2.417	-.140***	.016*			
ADLs	1.659	.268***	.059*		$\Delta R^2 = .003$	
DS	-1.223	-.058***	.002*			
Satisfaction with life				.353	.125	.110
Age	.134	.140***	.016*			
MS	1.620	.118***	.011*		$\Delta R^2 = .000$	
ADLs	-1.298	-.263***	.056*			
FS	-2.743	-.152***	.023*			
DS	-.012	-.001***	.000*			
Positive Affect				.335	.112	.098
MS	2.284	.109***	.010*			
ADLs	-1.783	-.238***	.046*		$\Delta R^2 = .001$	
Health	-.940	-.101***	.009*			
DS	1.106	.043***	.001*			
Negative Affect				.211	.045	.029
ADLs	.787	.158***	.020*			
FS	1.892	.104***	.010*		$\Delta R^2 = .001$	
DS	.470	.028***	.001*			

Note: MS = Marital Status, ADLs = Activities of Daily Living, FS = Financial Stress, and DS = Driving Status. Only covariates significant in the models are reported
* $p < .05$, ** $p < .01$, *** $p < .001$.

Positive affect: At Step 1, sociodemographic and health related variables accounted for 11% of the variance in positive affect scores, $R^2 = .111$, $F(7,484) = 8.61$, $p < .001$. Subsequent addition of driving status failed to result in a statistically significant change in the model, $\Delta F(1,483) = .795$, $p = .37$. In the final model, MS, $t(483) = 2.29$, $p = .022$, ADLs, $t(483) = -5.01$, $p < .001$, and physical health, $t(483) = -2.22$, $p = .027$, were statistically significant. This indicated participants who reported being married, having fewer ADL restrictions or few chronic medical diagnoses, reported higher positive affect relative to those who are unmarried, having more ADL restrictions, and a higher number of chronic medical diagnoses.

Negative affect: Sociodemographic and health related variables, entered at Step 1, explained 4% of the variance in negative affect, $R^2 = .044$, $F(7,484) = 3.19$, $p = .003$.

Addition of driving status at Step 2 failed to result in a statistically significant change in the model, $\Delta R^2 = .001$, $\Delta F(1,483) = .301$, $p = .58$. In the final model, only ADLs, $t(483) = 3.21$, $p = .001$, and financial stress, $t(483) = 2.30$, $p = .022$, were statistically significant. Participants fewer ADL restrictions and financial stress reported higher negative affect relative to those who reported fewer ADL restrictions and no financial stress.

Thus, the first hypothesis, that driving cessation would be associated with poorer well-being, as operationalised using measures of depressive symptoms, satisfaction with life, positive affect, and negative affect, was not supported for any of the four measures of well-being.

5.4.2 Pressure, Experiences and Well-Being

The second hypothesis states: (a) older ex-drivers who report more pressure to cease driving would report more negative post-driving cessation experiences relative to those ex-drivers who report less pressure, and (b) those who report more negative post-driving cessation experiences could be expected to report poorer well-being than older ex-drivers who report less negative driving cessation experiences.

(a) This hypothesis was supported. The unadjusted correlation between Pressure and Experiences was .534, $p < .001$; indicating ex-drivers who report more pressure to cease driving experienced driving cessation more negatively. Once sociodemographic and health related characteristics had been taken into consideration the relationship between Pressure and the outcome variable, Experiences, remained statistically significant. After entry of sociodemographic and health related variables and pressure to stop driving at Step 2, the model explained 36.5% of the total variance, $F(8, 91) = 6.53$, $p < .001$. Pressure to cease driving explained an additional 18% of the variance in post-driving cessation experiences scores over and above the contributions of sociodemographic and health related variables, $\Delta R^2 = .182$, $\Delta F(1, 918) = 26.00$, $p <$

.001. In the final model, ADLs, $t(91) = 2.06$, $p = .042$, and Pressure, $t(91) = 5.10$, $p < .001$ were statistically significant, with Pressure recording a higher beta value (beta = .483) than ADL (beta = .197).

(b) This hypothesis was supported for all four well-being measures. Table 8 displays the unadjusted correlations between post-driving cessation experiences and the well-being variables. The medium sized associations between experiences and depressive symptoms, satisfaction with life, positive affect and negative affect were statistically significant, indicating ex-drivers who report more negative post-driving cessation experiences experience a greater number of/more severe depressive symptoms, lower satisfaction with life, lower positive affect, and higher negative affect than ex-drivers who report less negative driving cessation experiences.

Table 8

Pearson Correlations Between Post-Driving Cessation Experiences and Well-Being

		Depressive Symptoms	Satisfaction with Life	Positive Affect	Negative Affect
Experiences	Correlation	.382**	-.463**	-.336**	.359**
	Sig. (2-tailed)	.000**	.000**	.001**	.000**
	N	100**	101**	100**	100**

** Correlation is significant at the 0.01 level (2-tailed).

Hierarchical regression with ex-drivers' data was used to determine if information regarding driving cessation experiences improved prediction of well-being beyond that afforded by sociodemographic and health differences. Table 9 reports unstandardized coefficients (B), standardised coefficients (β), semi-partial correlations (sr^2), R, R^2, and adjusted R^2 after entry of all IVs. After the effects of the sociodemographic and health related variables were taken into consideration the relationship between post-driving cessation experiences and each of the well-being measures remained statistically significant. Sociodemographic and health related variables for ex-drivers, entered into each regression equation at step 1, failed to explain

variance in any of the well-being scores. Post-driving cessation experiences, entered at the subsequent and final step, explained additional variance in scores for all of the well-being measures.

Table 9

Summary of Multiple Regression Analysis for the Impact of Driving Cessation Experiences on Well-Being

Variables	B	β	Sr^2 (unique)	R	R^2	Adj R^2
Depressive Symptoms	.520**	.332***	.09***	.461	.213	.143
Satisfaction with life	-.539**	-.431***	.15***	.525	.276	.213
Positive Affect	-.501**	-.264***	.06***	.409	.168	.094
Negative Affect	.463**	.367***	.11***	.392	.154	.079

* $p < .05$, ** $p < .01$, *** $p < .001$.

The results indicate older ex-drivers who have more negative post-driving cessation experiences report more severe depressive symptoms, lower satisfaction with life, lower positive affect, and higher negative affect compared with those who have less negative post-driving cessation experiences.

5.4.3 SDT Need Satisfaction

For the third hypothesis, on the basis that it was expected that driving status would be associated with poorer well-being, it was expected that giving up driving would have a negative impact on meeting SDT basic psychological needs, and that the impediment of need satisfaction would explain some of the relationship between driving status and well-being. Because there was no direct association between driving status and any of the well-being measures after the adjustment for covariates (Section 5.4.1) mediation was not tested. Table 10 displays the unadjusted correlations between SDT need satisfaction, driving status (DS), and well-being variables. The association between SDT need satisfaction and DS was small, the associations between SDT need satisfaction and the well-being measures were medium to large and all associations were

statistically significant; indicating drivers report higher need satisfaction compared with ex-drivers and older adults with higher need satisfaction report higher well-being relative to those who report lower need satisfaction.

Table 10

Pearson Correlations Between SDT Need Satisfaction, Driving Status and Well-Being

		DS	Depressive Symptoms	Satisfaction with Life	Positive Affect	Negative Affect
SDT Needs	Correlation	.104*	-.514**	.497**	.597**	-.455**
	Sig. (2-tailed)	.019*	.000**	.000**	.000**	.000**
	N	502*	495**	495**	494**	495**

Note: SDT = Self-Determination Theory, DS = Driving Status
* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

5.4.4 Coping

The fourth hypothesis states the use of assimilative (TGP) and accommodative (FGA) coping strategies will moderate the relationship between driving status and well-being; that is, driving status will be related to well-being when ex-drivers report low TGP (assimilative) and FGA (accommodative) coping tendencies.

Consistent with the Assimilative and Accommodative Model of Coping, all associations between TGP and FGA coping tendencies and well-being were statistically significant, indicating older adults who strongly endorse these coping strategies experience better well-being relative to those who less strongly endorse them. Table 11 displays the unadjusted correlations between TGP, FGA and the well-being variables.

Hierarchical regression was used to assess the ability of the interaction between driving status and coping tendencies (driving status by Tenacious Goal Pursuit: TGP Interaction, and driving status by Flexible Goal Adjustment: FGA Interaction) to predict levels of well-being, after controlling for sociodemographic and health related variables. This hypothesis was partially supported: the TGP interaction term was non-significant for all well-being measures; the FGA interaction term was significant for depressive

symptoms and positive affect, and non-significant for satisfaction with life and negative affect. Ex-drivers reporting low FGA coping tendencies endorsed more/worse depressive symptoms and lower positive affect than drivers reporting low FGA tendencies. Table 12 displays the unstandardized coefficients (B), standardised coefficients (β), semi-partial correlations (sr^2), R, R^2, and adjusted R^2 after entry of all IVs for each regression model.

Table 11

Pearson Correlations Between Coping and Well-Being

		Depressive Symptoms	Satisfaction with Life	Positive Affect	Negative Affect
TGP	Correlation	-.295**	.281**	.434**	-.259**
	Sig. (2-tailed)	.000**	.000**	.000**	.000**
	N	498**	502**	500**	501**
FGA	Correlation	-.364**	.371**	.431**	-.386**
	Sig. (2-tailed)	.000**	.000**	.000**	.000**
	N	495**	500**	497**	498**

Note: TGP = Tenacious Goal Pursuit, FGA = Flexible Goal Pursuit

** Correlation is significant at the 0.01 level (2-tailed).

Hierarchical regression was conducted comparing ex-drivers and drivers to test the significance of the simple slopes. Table 13 displays the unstandardized coefficients (B), standardised coefficients (β), and semi-partial correlations (sr^2) after entry of all IVs for each ex-driver and driver regression model for each well-being measure. The results for each well-being measure are now reported.

Depressive Symptoms: The overall model was significant, $F(12,476) = 13.61$, $p < .001$. In the first step, DS was entered into the model explaining 3% of the variance in depressive symptom scores, $R^2 = .027$, $F(1,487) = 13.34$, $p < .001$. Sociodemographic and health related variables entered at Step 2 explained an additional 10% of the variance. Entered at Step 3, TGP and FGA explained an additional 12% of the variance, $\Delta R^2 = .0124$, $\Delta F(2, 478) = 39.44$, $p < .001$. In the final step of the regression analysis, the interaction terms between driving status and the two coping tendencies were

entered, the FGA Interaction was statistically significant, $t(476) = 2.00$, $p = .046$. In the final model, of the covariates only MS and ADLs and each of the main effects, DS, TGP and FGA, were significant.

Table 12

Summary of Multiple Regression Analysis of Moderation for The Impact of Coping Tendencies on the Driving Status - Well-Being Relationship

Variables	B	β	sr^2 (unique)	R	R^2	Adjusted R^2
Depressive Symptoms				.505	.255	.237
DS	-1.950	-.093***	.006*			
MS	-2.226	-.129***	.013*		$\Delta R^2 = .006$	
ADL	.982	.159***	.019*			
TGP	-.117	-.136***	.016*			
FGA	-.277	-.305***	.080*			
TGP Interaction	-.041	-.019***	.000*			
FGA Interaction	.193	.084***	.006*			
Satisfaction with Life				.502	.252	.233
Age	.103	.108***	.009*			
MS	1.398	.102***	.008*			
ADL	-.810	-.164***	.020*		$\Delta R^2 = .003$	
FS	-2.724	-.151***	.022*			
TGP	.094	.137***	.016*			
FGA	.217	.300***	.078*			
TGP Interaction	.073	.044***	.002*			
FGA Interaction	-.077	-.042***	.002*			
Positive Affect				.592	.350	.334
ADL	-.691	-.092***	.006*			
Health	-1.014	-.109***	.010*		$\Delta R^2 = .005$	
TGP	.297	.285**	.069*			
FGA	.373	.339**	.099*			
TGP Interaction	.050	.019***	.000*			
FGA Interaction	-.210	-.075[a]**	.005*			
Negative Affect				.438	.192	.172
FS	1.860	.102***	.010*			
TGP	-.096	-.139***	.016*			
FGA	-.240	-.328***	.092*			
TGP Interaction	-.050	-.029***	.001*		$\Delta R^2 = .001$	
FGA Interaction	.007	.004***	.000*			

Note: DS = Driving Status, MS = Marital Status, ADL = Activities of Daily Living, FS = Financial Stress, TGP Interaction = the interaction term between DS and TGP, and FGA Interaction = the interaction term between DS and FGA.

* $p < .05$, ** $p < .01$, *** $p < .001$, [a] $p = .055$

Table 13

Summary of Multiple Regression Analysis Test of Simple Slopes for Ex-drivers and Drivers for The Impact of Coping Tendencies on Well-Being

	Ex-drivers			Drivers		
Variables	B	*β	sr^2 (unique)	B	β	sr^2 (unique)
Depressive Symptoms						
Gender	4.917	.243****	.047			
MS				-3.114	-.188***	.029
ADLs	1.052	.228****	.040	1.088	.131***	.015
FS				2.274	.108***	.011
TGP				-.118	-.145***	.018
FGA	-.410	-.378****	.112	-.234	-.276***	.066
Satisfaction with Life						
Age				.098	.094***	.008
Gender	-4.044	-.281***	.063			
MS				1.381	.099***	.008
ADLs	-.991	-.301***	.070	-.815	-.117***	.012
Health	-1.016	-.201***	.035			
Education	-4.392	-.274***	.062			
FS				-2.683	-.151***	.022
TGP				.110	.160***	.022
FGA	.253	.329***	.085	.196	.275***	.065
Positive Affect						
ADLs				-1.317	-.126***	.014
Health				-1.034	-.103***	.010
Education	-4.613	-.189***	.030			
TGP	.291	.272***	.059	.300	.292***	.073
FGA	.586	.500***	.195	.317	.298***	.076
Negative Affect						
TGP				-.106	-.148***	.018
FGA	-.267	-.404***	.127	-.235	-.315***	.085

Note: MS = Marital Status, ADLs = Activities of Daily Living, FS = Financial Stress, TGP = Tenacious Goal Pursuit, and FGA = Flexible Goal Pursuit.
* $p < .05$, ** $p < .01$, *** $p < .001$

Examination of the slope of the line between the low FGA score and the high FGA score for two hypothetical ex-driver participants indicates higher FGA scores are likely related to lower depressive symptoms (on the *y*-axis). The slope of the line between the low FGA score and the high FGA score for two hypothetical driver participants suggests higher FGA scores may be related to lower depressive symptoms

(see Figure 10). FGA appears to be more strongly related to depressive symptoms among ex-drivers than drivers.

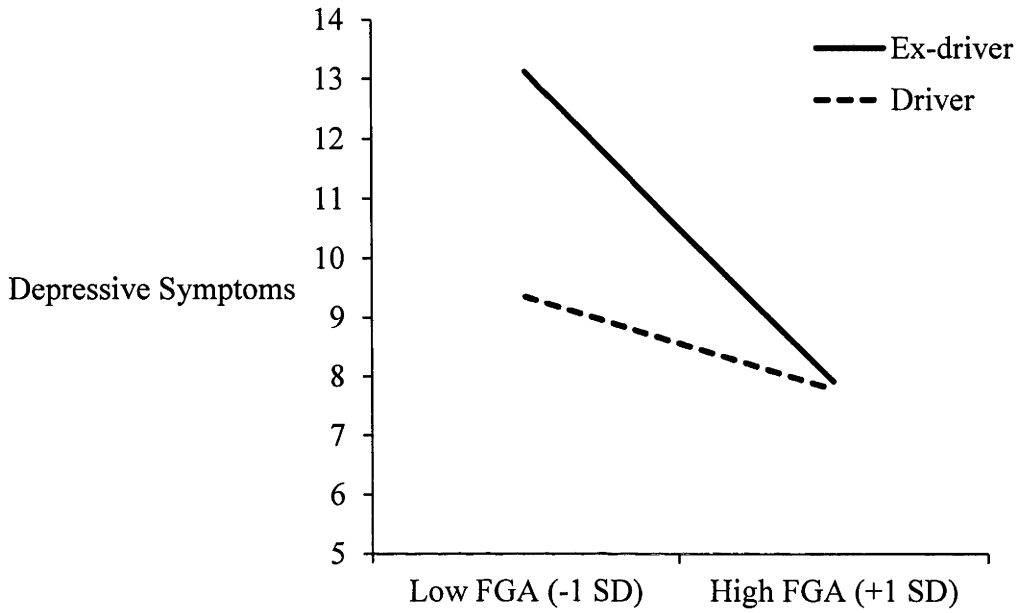

Figure 10. Flexible Goal Adjustment (FGA) scores for four hypothetical participants and depressive symptoms.

The test of the significance of the simple slopes found, in the ex-drivers regression model, sociodemographic and health related variables, entered at Step 1, accounted for a moderate portion of the variance in depressive symptom scores, R^2 = .219, $F(7, 92) = 3.68$, $p = .001$. At the second and final step, TGP and FGA were entered into the model, accounting for a further 14% of the variance in depression scores, $\Delta R^2 = .143$, $\Delta F(2,90) = 10.07$, $p < .001$. Only FGA was statistically significant $t(92) = -3.97$, $p < .001$; indicating ex-drivers with higher FGA scores report fewer/less severe depressive symptoms relative to ex-drivers with lower FGA scores and that TGP scores do not explain the variation in depressive symptom scores. In the drivers regression model, sociodemographic and health related variables entered at Step 1 accounted for 11% of variance in depressive symptom scores, $R^2 = .109$, $F(7, 381) = 6.67$, $p < .001$. TGP and FGA entered next explained an additional 12% in the variance

in depressive symptom scores, $\Delta R^2 = .116$, $\Delta F(2,379) = 28.43$, $p < .001$. TGP, $t(379) = -2.96$, $p = .003$, and FGA, $t(379) = -5.65$, $p < .001$, were statistically significant in the final model, suggesting that stronger TGP and FGA coping tendencies account for fewer depressive symptoms. Among those participants with low FGA, driving cessation is related to more depressive symptoms. Among those with high FGA, low levels of depressive symptoms are reported irrespective of driving status.

Satisfaction with life: The overall model was significant, $F(12,480) = 13.46$, $p < .001$. DS, entered into the model first, did not explain a statistically significant portion of the variance in satisfaction with life. Sociodemographic and health-related variables, entered at Step 2, accounted for 12% of the variance in satisfaction with life. TGP and FGA, entered at Step 3 explained a further 13% of the variance, $\Delta R^2 = .125$, $\Delta F(2, 482) = 39.99$, $p < .001$. In the final step, the interaction terms between driving status and the two coping tendencies did not explain a statistically significant portion of the variance in satisfaction with life.

Positive Affect: The overall model was significant, $F(12,479) = 21.52$, $p < .001$. DS, entered into the model first, explained almost 3% of the variance in positive affect scores, $R^2 = .026$, $F(1,490) = 13.32$, $p < .001$. Sociodemographic and health-related variables entered at Step 2, accounted for an additional 9% of the variance, $\Delta R^2 = .086$, $\Delta F(7, 483) = 6.67$, $p < .001$. TGP and FGA, entered at Step 3, explained a further 23% of the variance, $\Delta R^2 = .233$, $\Delta F(2, 481) = 85.58$, $p < .001$. At the final step, the FGA interaction term was borderline significant ($p = .055$).

Examination of the slope of the line between the low FGA score and the high FGA score for both ex-drivers and drivers indicates that higher FGA scores could be related to higher positive affect (on the *y*-axis) (see Figure 11). FGA appears to be more strongly related to positive affect among ex-drivers than drivers.

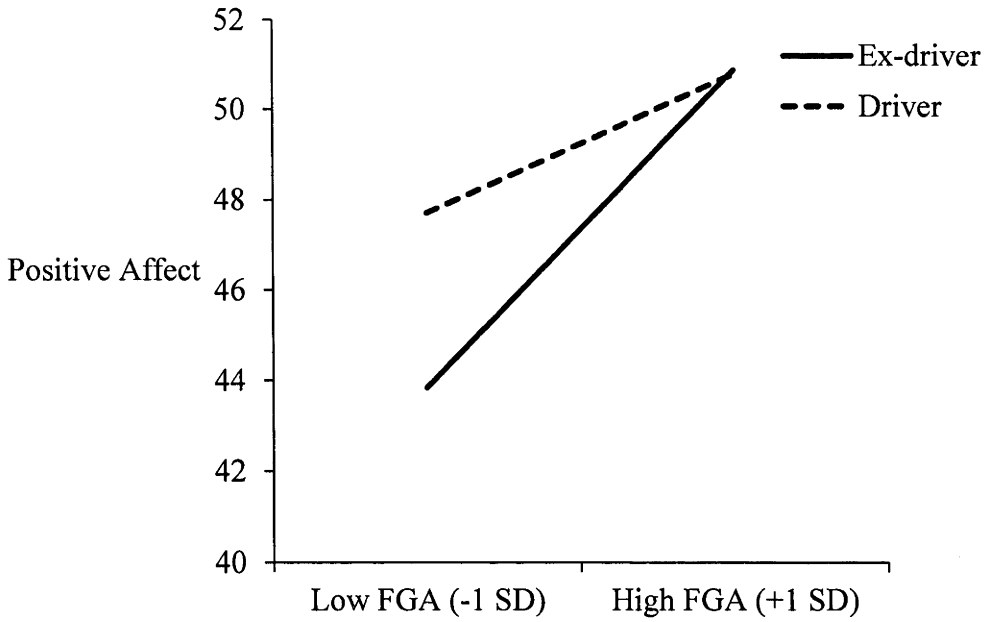

Figure 11. Flexible Goal Adjustment (FGA) scores for four hypothetical participants and positive affect.

The test for significance of the simple slopes for ex-drivers found sociodemographic and health related variables entered into the model at Step 1 accounted for around 17% of variance in positive affect scores, $R^2 = .186$, $F(7, 92) = 3.01$, $p = .007$. TGP and FGA, entered subsequently, accounted for an additional 32% of the variance in positive affect scores, $\Delta R^2 = .316$, $\Delta F(2, 90) = 28.55$, $p < .001$. Both TGP and FGA were statistically significant in the final model, $t(90) = 3.25$, $p = .002$ and $t(90) = 5.94$, $p < .001$ respectively; suggesting ex-drivers with higher TGP and FGA scores report higher positive affect compared to those with lower TGP and FGA scores. In the drivers regression model, sociodemographic and health related variables accounted for 9% of variance in positive affect scores, $R^2 = .091$, $F(7, 384) = 5.48$, $p < .001$. TGP and FGA entered next explained a further 22% in the variance in positive affect, $\Delta R^2 = .217$, $\Delta F(2,382) = 59.82$, $p < .001$. Both TGP, $t(382) = 6.34$, and FGA, $t(382) = 6.47$, were statistically significant to $p < .001$. Drivers with higher TGP scores and higher FGA scores reported higher positive affect relative to those with lower TGP and FGA scores. Among those participants with low FGA, driving

cessation is related to lower PA. Among those with high FGA, high levels of PA are reported irrespective of driving status.

5.4.5 Availability of Alternative Transport

The availability of alternative means of transport was explored to see whether individually they moderate the relationship between driving status and well-being. It was thought driving status may not be related to well-being when ex-drivers report (a) access to another driver or when they report (b) access public transport.

The relationship between access to another driver (DriverAccess) and all of the well-being measures except negative affect indicate older adults who have access to another driver (irrespective of whether or not they themselves are drivers) experience fewer depressive symptoms, higher satisfaction with life and higher positive affect relative to those who report no access to another driver. Access to public transport (TransAccess) was associated with depressive symptoms and satisfaction with life but not positive or negative affect; suggesting older adults who have access to public transport experience fewer depressive symptoms and higher satisfaction with life compared with those who report no access to public transport. Table 14 displays the unadjusted correlations between access to another driver, access to public transport, and the well-being variables.

Table 14

Pearson Correlations Between Available Transport and Well-Being

		Depressive Symptoms	Satisfaction with Life	Positive Affect	Negative Affect
Driver	Correlation	-.110**	.144**	.105**	-.024
Access	Sig. (2-tailed)	.014**	.001**	.018**	.598
	N	501**	507**	503**	504
Trans.	Correlation	-.101**	.131**	.022**	-.040
Access	Sig. (2-tailed)	.024**	.003**	.626**	.368
	N	500**	507**	502**	503

* Correlation is significant at the 0.05 level, ** Correlation is significant at the 0.01 level.

(a) Hierarchical regression was used to assess the ability of the interaction between driving status and access to another driver (driving status by Driver Access: Driver Access Interaction) to predict well-being, after controlling for sociodemographic and health related variables. The Driver Access Interaction term failed to result in a statistically significant change in well-being scores, indicating that the relationship between driving status and well-being does not vary as a result of access to another driver.

(b) Similarly, hierarchical regression was used to assess the ability of the interaction between driving status and access to public transport (driving status by Transport Access: Transport Interaction) to predict well-being, after controlling for sociodemographic and health related variables. The Transport Interaction term failed to result in a statistically significant change in well-being scores, indicating that the relationship between driving status and well-being does not vary depending on public transport accessibility.

In summary, the first hypothesis, which stated older adults who give up driving could be expected to report poorer well-being than older adults who continue to drive, was not supported for any of the four measures of well-being. There were small direct associations between driving status and depressive symptoms and between driving status and positive affect, which indicates ex-drivers report a greater number of/more severe depressive symptoms and lower positive affect than drivers; however, the associations were explained by ex-drivers also being more likely to be unmarried, and to have poorer ADLs and physical health. The second hypotheses states (a) older ex-drivers who report more pressure to cease driving will report poorer driving cessation experiences relative to those who report less pressure, and (b) those who report poorer driving cessation experiences could be expected to report poorer well-being than older ex-drivers who report more positive driving cessation experiences. Both (a) and (b)

were supported. The third hypothesis was not supported, the lack of association between driving status and wellbeing precluded mediation analysis. The fourth hypothesis, driving status will be related to well-being when ex-drivers report low TGP (assimilative) and FGA (accommodative) coping tendencies, was partially supported. Accommodative coping moderated the relationship between driving status and depressive symptoms and between driving status and positive affect. Ex-drivers reporting low FGA coping tendencies endorsed more/worse depressive symptoms and lower positive affect than drivers reporting low FGA tendencies. Finally, access to another driver was related to higher levels of well-being on each of the well-being measures, except negative affect; and access to public transport was associated with fewer depressive symptoms and higher satisfaction with life. However, the relationship between driving status and well-being did not vary as a result of access to another driver or access to public transport.

5.5 Discussion

In the current study, driving status predicted depressive symptoms and positive affect in the unadjusted analysis. However, the associations became non-significant after accounting for marital status, physical functioning and health. Driving cessation precipitating factors (i.e., the pressure ex-drivers felt to cease driving) predicted driving cessation experiences and ex-drivers' post-driving cessation experiences predicted well-being. Accommodative coping moderated the relationship between driving status and well-being, but assimilative coping and the availability of alternative transportation did not. Each of these findings is discussed below in the context of the theory explaining post-driving cessation experiences and well-being outlined in the previous chapter. One assumption of the theory explaining post-driving cessation experiences and well-being is that driving cessation experiences can be negative, neutral, or positive depending on, in part, ex-drivers' ability to adapt and cope with stressors. The results of this study seem to support this assumption. Post-driving cessation experiences are assumed to be distinct from well-being, which the medium sized associations between experiences and each of the well-being measures suggests is the case. Finally, coping strategies reportedly used are generally assumed to have been adaptive; this assumption is discussed in Section 5.5.4.

5.5.1 Driving Status and Well-Being

The evidence for a relationship between driving cessation and poorer wellbeing is robust (Fonda et al., 2001; Marottoli et al., 1997; Ragland et al., 2005; Windsor et al., 2007); this is a core component of the theory explaining driving cessation. In this sample of older Australian ex-drivers and drivers, however, driving status was not linked with depressive symptoms, satisfaction with life, lower positive affect, or higher

negative affect after statistically controlling for sociodemographic and health related variables. These findings run contrary to the majority of driving cessation research. Study design and sampling method used for this study differ in a number of ways from those of previous driving cessation studies. These differences may have resulted in selection bias, such that people who are distressed about giving up driving may not have volunteered to participate in a study focusing on driving cessation. In addition, there may be some characteristic of the current sample, such as the ability to avoid many of the negative consequences of driving cessation, leading to better post-driving cessation well-being than expected. Both these points are discussed below. It may also be that ex-drivers in the current study effectively utilised adaptive coping strategies that offset the impact of driving cessation on well-being. This is discussed in the context of the Assimilative and Accommodative Model of Coping in Section 4.5.4.

Stress-coping research indicates individuals respond in two ways to stress: approach and avoidance (Roth & Cohen, 1986), suggesting those experiencing driving cessation-related stress may avoid thinking about the source of the stress, (i.e., driving cessation). Ex-drivers depressed about giving up driving may avoid participating in driving cessation specific research and yet be willing to participate in general epidemiological studies. This may explain why the current study did not find an association between driving status and well-being whereas previous studies did. Each of the previous driving cessation studies report results from broader panel studies exploring: assets and health (Fonda et al., 2001; Soldo, Hurd, Rodgers, & Wallace, 1997), general levels of physical and mental health (Berkman et al., 1986; Marottoli et al., 1997), and ageing and physical health (Ragland et al., 2005; Satariano, Smith, Swanson, & Tager, 1998) among older American adults; and determinants and predictors of the health and social well-being among Australian older adults (G. Andrews, Cheok, & Carr, 1989; Windsor et al., 2007). Participants were not recruited

specifically for studying driving cessation. Participants were targeted though household listings and medical administrative records (Soldo et al., 1997), telephone and utility listings (Berkman et al., 1986; Satariano et al., 1998), and the electoral roll (G. Andrews et al., 1989); and in one case recruitment methods were determined, with two mail outs followed by a maximum of six attempts over a two week period to make phone contact or a personal visit to the home (Satariano et al., 1998). Such methods would be more likely to pick up depressed participants who would not otherwise volunteer to participate in research. Study design and sampling method may therefore explain why the current study findings run contrary to the majority of driving cessation research.

In addition, while the characteristics of the sample in this study are similar in many respects to the characteristics of previous research samples, this sample were on the whole better educated and more financially secure. Statistical analysis may somewhat address the confounding effects of sociodemographic variations; however, higher socioeconomic status has far reaching direct and indirect ramifications. Higher socioeconomic status older adults are less likely to experience adverse events, are better prepared to cope with life stressors and continue to meet their needs in life in general (McLeod & Kessler, 1990). Financially secure individuals more likely have sufficient financial resources than financially stressed individuals to cope and better educated individuals are more likely to adopt effective coping strategies than individuals with less education (Pearlin & Schooler, 1978). Therefore, the non-significant relationship between driving status and well-being may be explained by sample bias; the sample were on the whole financially secure, meaning they may be less likely to experience the negative effects of driving cessation, and better educated, meaning they may have more coping resources available to them should negative effects of driving cessation be experienced.

One study finding a non-significant association between driving cessation and depressive symptoms suggests the absence this finding could be due to differing prevalence rates of depression (Edwards, Lunsman, et al., 2009). In the current study, depression was assessed at a specific point in time. The one-off evaluation of depressive symptoms over the past week in the current study assesses the point prevalence of depressive symptoms. The non-significant association between driving cessation and depression in the current study could therefore be due to differing prevalence rates of depression. In addition, the period of time between cessation and the evaluation of depression for many participants in the current study may explain the non-significant result. In previous studies the period of time between cessation and the evaluation of well-being was two years for one study (Windsor et al., 2007) and up to six years (Marottoli et al., 1997) for another. Perhaps no longer driving is associated with poorer well-being during the first few years post-cessation but over a longer period of time ex-drivers adjust to no longer driving. Had there been driving cessation associated increases in depressive symptoms they may have been resolved. In support of this hypothesis, one study among older adults who ceased driving five years or more prior to evaluation of depressive symptoms did not find a relationship between driving status and depressive symptoms (Fonda et al., 2001). However, in the current study, post hoc analysis indicated no significant difference in well-being scores between ex-drivers who had ceased driving less than four years versus who had stopped driving more than four years prior to completing the questionnaire. This may be due to a lack of statistical power, that there were too few older adults who had stopped driving recently enough to be experiencing the potentially more acute effects of giving up driving, or that the period of time between cessation and the evaluation of well-being does not explain the why ex-drivers did not report poorer well-being than drivers in the current study.

5.5.2 Pressure to Cease Driving, Experiences and Well-Being

Experiences during the decision phase of driving, such as pressure to cease driving, may affect post-driving cessation experiences. In the current study, ex-drivers who reported being pressured to give up driving also reported more negative driving cessation experiences compared with those who felt free to make the decision to stop driving themselves. This supports the component of the theory of driving cessation that posits that ex-drivers' interpretation of post-cessation experiences may depend in part on driving-cessation precipitating events, such as the level of choice ex-drivers had in making the decision to stop driving. Little choice in the decision to give up driving may to lead to more negative post-driving-cessation experiences than if the ex-driver was proactive in the decision. Older adults coerced into giving up driving with offers of help with transportation needs may feel anger and regret. This occurs when anticipated help is not provided (J. E. Johnson, 1999); or when help is provided and it is insufficient, or when the older adult feels indebted or burdensome to the person who provides transport, or experiences nervousness about the driver's ability to drive (Carp, 1972). Also, when family, friends, and health professionals urge or push older adults into giving up driving those older adults oftentimes are left feeling helpless (J. E. Johnson, 1999; Whitehead et al., 2006). These feelings may persist into the post-cessation phase. When faced with unpleasant circumstances, in this case the decision to stop driving, pressure brought to bear by others diminishes one's sense of control (cf, Deci & Ryan, 2000a; Kunzmann et al., 2002). This in turn produces greater emotional disturbance than when faced with more controllable unpleasant circumstances (Maier & Seligman, 1976).

Similarly, post-driving cessation experiences likely affects longer term well-being. In the current study, ex-drivers who reported negative post-driving cessation experiences and attributed relationship and health declines to giving up driving tended

to experience poorer well-being at the time of completing the questionnaire, which was often months and years after driving cessation, than those who reported less negative experiences of giving up driving. There are a number of possible explanations for this. For instance, depressed individuals are more prone to systematically interpret experiences negatively (discussed in more detail in Chapter 6 and cf. A. T. Beck et al., 1979; J. S. Beck, 1995). Older adults who experience depressive symptoms prior to driving cessation (Ragland et al., 2005; Windsor et al., 2007) may go on to experience giving up driving more negatively than those who experience fewer depressive symptoms prior to driving cessation. In this way a feedback loop of experiences and depressed mood may lead to worsened depressive symptoms. Alternatively, older adults who report poorer giving up driving experiences may do so because, at the time of completing the questionnaire, they were experiencing poorer well-being (specifically depressive symptoms) and therefore interpret past experiences more negatively.

Current driving cessation interventions, which through education and support target the community engagement and mobility and lifestyle issues of older adults planning to stop driving (Liddle et al., 2007) focus mainly on practical issues, problem solving (Gustafsson et al., 2011; Liddle et al., 2013; Liddle et al., 2007), and the provision of transportation (ACT Government, 2012). Perhaps interventions should place greater emphasis on identifying and treating individuals' psychological appraisals of the circumstances surrounding driving cessation, as this could have implications for subsequent adjustment.

5.5.3 Driving Status and Need Satisfaction

The results from this study indicate no longer driving is not associated with poorer well-being therefore the hypothesis that stated the thwarting of the three psychological needs (Deci & Ryan, 2000b; Ryan & Deci, 2008) will mediate the

relationship was not explored. Post hoc analysis revealed driving cessation does not appear to restrict or thwart need satisfaction; driving status was associated with total need satisfaction, specifically with sense of competency, however, adjustment for poorer physical functioning accounted for the relationship. Poorer physical functioning, especially cognitive and visual impairment, unsurprisingly, is a predictor of driving cessation (Edwards et al., 2008; Horowitz et al., 2002; Marottoli et al., 1997; Mezuk & Rebok, 2008). While driving cessation per se does not predict lower sense of competency among the participants in this study, driving cessation may be closely intertwined with poorer physical and cognitive functioning, which together undermine competency need satisfaction. Consistent with SDT, need satisfaction was associated with well-being. Therefore, driving cessation may be a marker for declining physical functioning and assist in the identification of individuals who may struggle to maintain competency beliefs in the context of ageing-related losses.

The limited need satisfaction component of the post-driving cessation theory was not supported. On the basis of this study driving cessation does not appear to restrict or thwart need satisfaction, suggesting SDT does not contribute to understanding the mechanisms underpinning the relationship between driving cessation and well-being. Before rejecting the theory, given the limitations of the current study (discussed in Section 5.5.6, below), it would be prudent to re-test the hypothesis among a representative sample of older ex-drivers. SDT may yet contribute to understanding driving cessation and well-being.

5.5.4 Driving Status, Coping and Well-Being

> The wise person "accommodates to necessity"
>
> (Epictetus cited by Burton, 1977, p. 169)

Theory explaining post-driving cessation experiences and well-being explains the absence of poorer well-being post-cessation being the result of adapting to no longer driving. The Assimilative and Accommodative Model of Coping, which focuses on the dynamic interplay between the active and efficient pursuit of goals and protection against the changing resources and circumstances of life (Brandtstädter, 1999; Brandtstädter & Greve, 1994; Brandtstädter & Rothermund, 2002; Brandtstädter et al., 1993), reveals how ex-drivers well-being may be protected from the negative consequences of driving cessation. Adaptive assimilative and accommodative processes and the interchange between them require stability and flexibility, some form of self-reflection, and an accurate appraisal of control potentials and limitations for corrective action (Brandtstädter & Renner, 1990a, 1992). Research suggests individuals with strong tendencies toward assimilative and accommodative coping strategies tend to experience fewer depressive symptoms (Kelly et al., 2013), higher satisfaction with life (Brandtstädter & Renner, 1990a), and higher positive affect and lower negative affect (Heyl et al., 2007) than those with weaker tendencies. Consistent with this theory, older Australian adults in the current study who reported stronger tendencies towards assimilative and accommodative coping strategies experienced more well-being compared with those who reported weaker coping tendencies. Furthermore, accommodative coping (operationalized as flexible goal adjustment) moderated the strength of the relationship between driving status and two of the well-being measures: depressive symptoms and positive affect, however, the strength of the relationship between driving status and well-being was not moderated by assimilative coping.

5.5.4.1 Assimilative coping

Brandtstädter and colleagues maintain that individuals engage in self-regulatory activities, such as self-monitoring, which involves assessing current development and life circumstances against one's own preferred conditions and resources (Brandtstädter

& Renner, 1990a; Brandtstädter et al., 1999; Mueller & Kim, 2004). When circumstances are evaluated as unfavourable, which is often the case when an individual gives up driving (Adler & Rottunda, 2006; M. J. Bauer, Rottunda, et al., 2003; Bedard & Kafka, 2008; Bonnel, 1999a; Carp, 1971; Cutler, 1972; Dellinger et al., 2001; Edwards, Lunsman, et al., 2009; J.A. Kelley-Moore et al., 2006; Liddle et al., 2008; Marottoli et al., 2000; Mezuk & Rebok, 2008; Shope, 2003; Whitehead et al., 2006), disappointment and frustration are experienced (Brandtstädter & Renner, 1990a). Under such circumstances, individuals respond using assimilative and accommodative processes to either make the unsatisfactory situation more satisfactory or make the unsatisfactory situation appear less negative or more satisfactory (Brandtstädter, 2009; Brandtstädter & Rothermund, 2002). Assimilative coping involves assessing what actions can be taken to correct the situation and whether the individual has the necessary resources and control potential to affect change. When personal resources/control are insufficient, and resources and/or support are not available, self-doubt, worry, depression and despondency follow (Brandtstädter & Renner, 1990a, 1992). It was thought assimilative coping (e.g., making lifestyle changes) would reduce discrepancies between unsatisfactory post-driving cessation circumstances (e.g., reduced mobility) and ex-drivers' desired circumstances (e.g., maintaining pre-cessation levels of out of home activity); such that ex-drivers would experience similar levels of well-being to drivers. Ex-drivers who tended not to engage in assimilative coping would be expected to have poorer wellbeing. However, this was not the case: the relationship between driving status and well-being was not moderated by assimilative coping tendencies.

One explanation for assimilative coping not moderating the relationship between driving status and well-being is the inhibiting of assimilative coping in favour of accommodative coping in later life. An important and basic assumption of the coping model is assimilative and accommodative processes are antagonistic and synergistic,

they tend to inhibit one another while working together in harmony, and the point at which one mode of coping comes to dominate involves appraisal of control potentials (Brandtstädter et al., 1999). Assimilative coping, generally, takes precedence over accommodative coping when circumstances seem open to intentional modification and personal resources/support/control are seen as sufficient. When self-efficacy is high time and effort will be expended in engaging in assimilative coping strategies (Brandtstädter, 1992). With ageing, assimilative coping directed specifically at compensatory goals tends to become especially important (Brandtstädter et al., 1999) as developmental losses begin to outweigh developmental gains (P. B. Baltes, 1987, 1997). Performance deficits, such as no longer being able to drive, may be compensated for by selective development of underdeveloped skills, such as learning how and when to access public transport, or engaging external supports and resources, such as asking for a lift. However, the cost to the individual of engaging in assimilative coping strategies, such as time, inconvenience, financial cost and sense of burden, may come to outweigh the benefits. Increasingly, in later life, as older adults are faced with personal development and life circumstances that are beyond their control (Brandtstädter, 1992), individuals may be forced to accommodate goals. Thus, in older age accommodative coping takes precedence over and inhibits assimilative coping (Brandtstädter, 1992; Rothermund & Brandtstadter, 2003). It may be that assimilative coping does not moderate the relationship between driving status and well-being because accommodative coping becomes the dominant mode of coping effecting well-being in later life.

Previous empirical studies have found the moderating effects of assimilative coping are weaker than the moderating effects of accommodative coping, or are dependent on the presence of high accommodative coping, or have no affect at all (Brandtstädter, 1992, 1999; Heyl et al., 2007). Such findings indicate the buffering

effects of assimilative coping strategies may be domain dependent (Heyl et al., 2007) or dysfunctional when circumstances are irreversible (Brandtstädter, 1992). Driving cessation in later life due to cognitive or visual decline is likely irreversible so that persistent efforts to correct this loss, whether through readjustment of behaviour or life style change, might ultimately be unsuccessful. Some of the many benefits of driving (Carp, 1971; Ellaway et al., 2003; Hiscock et al., 2002) may be obtained elsewhere, however, the results of the current study suggest assimilative action might not be an effective mode of coping with the impacts of driving cessation. The psychological and emotional impacts associated with the permanent and irreversible loss of driving are, however, mitigated by accommodative coping strategies.

5.5.4.2 Accommodative coping

In the current study, accommodative coping moderated the relationship between driving status and positive affect and depressive symptom. When accommodative coping is high ex-drivers and drivers enjoy equivalent levels of well-being. However, when accommodative coping is low ex-drivers experience poorer well-being than drivers. This result lends support to the theory of the relative importance of accommodative tendencies when facing challenges in life such as driving cessation. Accommodative coping strategies will take precedence over assimilative coping when assimilative coping becomes ineffective and self-efficacy dwindles (Brandtstädter & Renner, 1992), such as when repeated attempts to master irreversible driving-cessation losses have been unsuccessful.

As stated previously, under post-driving cessation circumstances (irreversible losses and dwindling personal resources) accommodative coping becomes more vital for ex-drivers' well-being than for drivers with more personal resources. In keeping with the Assimilative and Accommodative Model of Coping (Brandtstädter & Greve, 1994), devaluation and disengagement from thwarted goals may be the only way for ex-

drivers with few personal resources to relieve the dissatisfaction associated with failure to attain a goal. Without accommodative flexibility individuals fail to disengage from blocked goals and, for as long as the they hold unattainable goals dear, those goals will be a source of dissatisfaction (Brandtstädter & Greve, 1994; Brandtstädter & Rothermund, 2002). Ex-drivers with fewer personal resources than drivers and who struggle to lower the attractiveness of goals that can no longer be attained would experience poorer well-being than drivers who, while low in accommodative coping, may have more opportunities for assimilative coping and therefore rely less on accommodative strategies.

In summary, use of assimilative and accommodative coping strategies was associated with higher levels of well-being. Contrary to the fourth hypothesis, assimilative coping does not appear to offset the impact of no longer driving on well-being. The interaction between driving status and TGP did not enhance prediction of any of the well-being scores over and above the effects of the covariates. This may be due to the inhibiting of assimilative coping in favour of accommodative coping in later life and/or the dysfunctional nature of assimilative coping strategies when circumstances are irreversible. Supporting the fourth hypothesis, the interaction between driving status and FGA predicted level of well-being over and above the effects of the covariates. Accommodative coping appears to be especially important for well-being among older adults who have given up driving and this may be because ex-drivers have fewer opportunities for assimilative coping than those who continue to drive.

The driving cessation theory (Chapter 4) states post-driving cessation well-being will be protected when older adults find ways to adjust to no longer driving and associated losses. The theory, partially supported, would benefit from refinement.

Specifically, accommodative modes of coping are important for well-being among older adults who have given up driving.

5.5.5 Driving Status, Access to Alternative Transport and Well-Being

Access to transportation is said to be vital for older adults to remain active and healthy (Browning & Sims, 2007). Older adults who give up driving have to rely on alternative transport; these are most often friends and family who drive and, to a lesser extent, public transport (L. P. Kostyniuk & Shope, 2003). The provision of transportation has become an important policy issue, with the focus on sustainability and access for those with disabilities rather than the needs of older ex-drivers per se (ACT Government, 2012; Gilhooly et al., 2002). However, there is no evidence to suggest interventions based on the provision of transportation will diminish the relationship between driving cessation and reduced social integration (Mezuk & Rebok, 2008) or worsened depressive symptoms (Fonda et al., 2001).

The current study found older adults with access to alternative transportation, access to another driver and/or public transport, experience more well-being compared with those without. However, the relationship between driving status and well-being did not vary as a function of access to transportation: the availability of transport, while important for well-being generally, does not appear to benefit ex-drivers more or less than it benefits drivers. This may be because of how people feel when they have to (rather than choose to) use alternative transport (Cutler, 1972). The costs associated with needing to take lifts with family or friends, indebtedness and feeling as if one were a burden, may be keenly felt and the costs of using public transport, such as stigma, may offset psychological benefits arising from the maintenance of out-of-home activity. While access to public transportation may provide opportunities for maintaining mobility, and mobility is associated with a better quality of life (Metz, 2000), those

opportunities may not be taken up (L. P. Kostyniuk & Shope, 2003). Barriers to using public transport include affordability, acceptability and availability (Currie & Allen, 2007). Often there is stigma associated with public transport use and dissatisfaction with services (Gilhooly et al., 2002) which, despite having access to public transport, dissuade older adults from its use or offset any benefit to psychological well-being.

Finally, the finding that the impact of driving cessation on poorer well-being is not moderated by the availability of alternative transportation suggests that there might something about no longer driving, other than lacking access to transportation, which increases the risk for poorer well-being among ex-drivers, such as poorer health and physical functioning. This raises questions about the efficacy of driving cessation interventions which focus predominantly on increasing access to, or improving, public transport services for ex-drivers' well-being. Research suggests reduced perceived control may be a risk factor for poorer well-being after driving has ceased (Windsor et al., 2007). Interventions targeted at the group level, such as support group programs (Gustafsson et al., 2012), or at the individual level, such as counselling, may prove more effective, and therefore important than transportation programs, for ex-drivers well-being. This is not to say that access to transportation is unimportant and should not be incorporated into post-cessation interventions. The benefits of access to transportation are evident in maintaining active and physically healthy, and quality of life (Browning & Sims, 2007; Metz, 2000) and the provision of transport may be especially important during the months immediately following driving cessation, when psychological distress is likely most intense (Fonda et al., 2001) and during the shift from assimilative to accommodative coping. As the theory of driving cessation currently stands (Chapter 4) it does not take into consideration the benefits of transportation for well-being more generally or the potential for the benefits being time-limited.

5.6 Conclusion

Driving cessation has been associated with a significant number of detrimental social, psychological, and physiological outcomes, including increased depressive symptoms. However, in this current study among older Australian ex-drivers and drivers, driving status was not associated with worsened depressive symptoms, poorer satisfaction with life, lower positive affect, or higher negative affect after adjustment for covariates. This may be explained by sample characteristics. This sample appeared to be better educated and more financially secure than participants in previous research, such that they were likely better prepared to cope with driving cessation, were more able to avoid experiencing many of the negative effects of driving cessation, and likely adopted more effective coping strategies when faced with post-cessation challenges. Further, this study does not conclusively show poorer well-being is not experienced post-cessation, rather poorer well-being was not experienced at the time the questionnaire was completed. An assessment of well-being over a period of time may return a different result.

The mechanisms that underpin the relationship between driving cessation and poorer psychological health were not explored because no relationship was found in the current study. However, experiences during the decision phase of driving, and pressure felt to give up driving, appear to affect post-driving cessation experiences and experiences of the giving up of driving seem to affect longer term well-being. Whether this is because the negative experiences of giving up driving leave a lasting impression or because depressed individuals are more prone to interpret experiences negatively remains unclear.

Consistent with the theory of assimilative and accommodative coping (Brandtstädter, 1999, 2009; Brandtstädter & Greve, 1994; Brandtstädter & Renner, 1990a; Brandtstädter & Rothermund, 2002; Brandtstädter et al., 1993) older Australian

adults who reported stronger tendencies towards assimilative and accommodative coping strategies experienced more well-being compared with those who reported weaker coping tendencies. The hypothesis stating stronger tendencies towards assimilative and accommodative coping would offset the negative impacts of driving cessation on well-being was partially supported. Assimilative coping did not moderate the relationship between driving status and well-being. This may be due to accommodative coping being favoured over assimilative coping; possibly because problems arising from driving cessation are too costly to tackle or beyond one's control. Or, because many problems arising from driving cessation are irreversible, therefore attempts to tackle them are fruitless. Accommodative coping moderated the strength of the relationship between driving status and well-being (i.e., depressive symptoms and positive affect). Older adults who give up driving must do without autonomous transportation, a significant resource generally taken for granted, and when corrective action is not possible and no other support is available goal attainment dependant on mobility may not be possible. Relinquishing unattainable goals (accommodative coping) is the only way of mitigating the negative emotions and feelings of helplessness and hopelessness that persist for as long as blocked goals are highly valued.

Older adults with access to alternative transportation, access to another driver and/or public transport, experience higher well-being compared with those without. However, availability of alternative transport failed to moderate the relationship between driving status and well-being. This suggests the availability of transport is important for well-being generally, does not benefit ex-drivers more or less than drivers, and that there may be something about no longer driving, other than lacking access to transportation, which increases the risk for poorer well-being among ex-drivers.

5.6.1 Limitations and Future Research

The present study has its limitations. First, cross-sectional data cannot be used to draw inferences about cause and effect. Thus, it is not possible to tell whether accommodative coping offsets the impact of driving cessation on well-being or whether individuals experiencing higher levels of well-being are more disposed to accept and disengage from unattainable goals. The coping research would suggest it is the former (Brandtstädter, 2009), however much of the assimilative/accommodative research is cross-sectional in design and future research is needed to clarify the causal sequence.

Second, while studies from other countries and from data almost two decades old found driving status predicts well-being, the current study found no such relationship. The sample in the current study was not representative of the general population, with higher socio-economic status individuals overrepresented. A broader sampling of the population to include lower socio-economic individuals is needed to confirm whether driving cessation continues to predict poorer well-being. It was also not possible to confirm whether the longer length of time since giving up driving explained the non-significant finding.

Finally, availability of transportation was operationalized as *access* to alternative transportation rather than *use* of alternative transport. Individuals with access to alternative transportation do not necessarily use the transport available to them, in which case unused alternative transportation could not be expected to support well-being.

Chapter 6

CLINICAL INTERVENTIONS

6.1 Abstract

Current interventions target the transition from driver to non-driver (Liddle et al., 2007; Liddle et al., 2008). There is a need for assistance/programs to help older adults who give up driving and experience increased/worsened depressive symptoms. Broadly, interventions informed by Self-Determination Theory (Deci & Ryan, 2000b) and the Assimilative and Accommodative Model of Coping (Brandtstädter, 2009) would focus on need satisfaction and appropriate self-regulatory processes. More specifically, Cognitive Behaviour Therapy (CBT) (A. T. Beck & Alford, 2009; A. T. Beck et al., 1979; J. S. Beck, 1995) and Acceptance and Commitment Therapy (ACT) (Luoma et al., 2007) could be used to could be used to conceptualise and treat depression symptoms. This chapter aims to assist clinicians to assess, conceptualise, and treat older adults with depressive symptoms post-driving cessation. It is assumed clinicians will be conversant with the basics of CBT and ACT. Implications for policy makers are briefly discussed.

6.2 Introduction

The findings presented in this thesis, when placed in the broader context of driving cessation research (cf. Chapter 1) and theories of psychological distress (cf. Chapter 2), provide an initial framework for developing targeted and flexible psychological interventions to improve post-cessation levels of well-being. Current interventions target the transition from driver to non-driver (Liddle et al., 2007; Liddle et al., 2008) with little emphasis on addressing more distal psychological well-being outcomes post cessation. There is a need for assistance/programs to help older adults who give up driving and experience increased/worsened depressive symptoms. Post-driving cessation interventions should not only target reducing the likelihood of depression among those who give up driving, but also the treatment of emergent depression.

Older ex-drivers are a heterogeneous population, many of whom struggle once driving ceases, and experience poorer psychological health (M. J. Bauer, Rottunda, et al., 2003; Bonnel, 1999a; Fonda et al., 2001; Marottoli et al., 1997; Ragland et al., 2005; Windsor et al., 2007). The complex relationship between driving cessation subjective experiences and various sociodemographic and psychological characteristics indicates the need for post-cessation psychological interventions that can be tailored to each individual. Older adults prepared to discuss their experiences of no longer driving may need to be given time to talk about the context of their giving up driving, as it appears placing driving cessation experiences into the context of how and why they gave up is important to ex-drivers (cf. Chapter 3). Decision phase experiences have an impact on post-cessation phase driving experiences and well-being (Chapter 4; Chapter 5) and may also need to be explored with the ex-driver to facilitate effective intervention.

Adaptive coping strategies, such as accommodative coping (Brandtstädter & Renner, 1990a, 1992), may need to be utilised before potentially positive impacts of driving cessation, such as personal growth, are experienced (Chapter 3; and cf. Buys & Carpenter, 2002b). Accommodative coping could also lead to accepting driving cessation related losses (e.g., loss of independence, reduced participation and social contact, and a loss of intimacy) that cannot be reversed. Post-cessation psychological interventions that support ex-drivers in enhancing or developing the psychological flexibility needed for accommodative coping should have positive outcomes. Well-being is protected when older adults find ways to accommodate no longer driving and the many and varied losses associated with driving cessation (Chapter 5).

Broadly, interventions informed by Self-Determination Theory (Deci & Ryan, 2000b) and the Assimilative and Accommodative Model of Coping (Brandtstädter, 2009) would focus on identifying ways of facilitating need satisfaction, and providing support for the ex-driver to adopt appropriate self-regulatory processes to deal with discrepancies between actual and desired post-cessation circumstances. More specifically, Cognitive Behaviour Therapy (CBT) (A. T. Beck & Alford, 2009; A. T. Beck et al., 1979; J. S. Beck, 1995) could be used to identify, target and modify unhelpful patterns of thinking that stop the ex-driver from achieving achievable goals and finding ways of overcoming these barriers (A. T. Beck et al., 1979). Acceptance and Commitment Therapy (ACT) (Luoma et al., 2007) could be used to enhance or develop ex-drivers psychological flexibility and accommodative coping when goals are no longer achievable.

The remaining sections of this thesis are designed to assist clinicians to assess, conceptualise, and treat older adults with depressive symptoms post-driving cessation. Two theoretical approaches to psychological distress, Cognitive Theory (A. T. Beck et al., 1979) and Relational Frame Theory (RFT; Hayes, 2004) are used to conceptualise

depression. The strategies and tools included here reflect current best practice for the assessment and treatment of depression, on the basis of their psychometric properties, and empirical and professional support. Clinicians are guided in how to construct a case formulation for and treat an adult with depression, through coverage of the following topics: aetiology, nature and presentation of depression, theoretical conceptualisation of depression, and treatment options. In compiling this information, it is assumed clinicians will be conversant with the basics of CBT and ACT, a brief overview of these therapies is provided. The information is a guide only, clinical judgement must be used, and assessment and treatment must be tailored to each client according to their experiences of driving cessation, presentation of depression, individual characteristics, and circumstances. Incorporated into this chapter, is a brief discussion comparing and contrasting the application of CBT and ACT to assessing, conceptualising, and treating depressive symptoms experienced by older adults who have given up driving. Concluding the chapter are comments on considerations for policy makers.

6.3 Characteristics of Depression

6.3.1 Aetiology, Vulnerability Factors and Course

Incidence of depression in older adults ranges between 9% and 20% (in research using the CES-D; Beekman et al., 1995; Schoevers et al., 2000). Initial onset of depression in later life is not uncommon (American Psychiatric Association, 2013). Age per se is not associated with depression (Schoevers et al., 2000), with the possible exception of older women (Beekman et al., 1995). Generally, depression is more prevalent among women, 1.5 to 3 times higher, than among men (American Psychiatric Association, 2013; Beekman et al., 1995). Heredity factors and psychosocial challenges, such as personal/familial history of depression, financial stress, disability, isolation, and bereavement, are thought to increase vulnerability to depression or trigger depression in already vulnerable older adults (Alexopoulos, 2005; Beekman et al., 1995; Prince, Harwood, Thomas, & Mann, 1998; Schoevers et al., 2000; Windsor et al., 2007). Individuals who have experienced previous episodes of depression or non-mood psychological disorders are at increased risk of developing depression. Environmental factors, such as lacking social support, may further increase vulnerability to depression in the face of life stressors (Schoevers et al., 2000). These risk factors for depression should be taken into consideration when assessing older ex-drivers who present with psychological distress.

The course of depression varies but it is typically a recurrent condition (Mitchel & Izquierdo de Santiago, 2009; Vuorilehto, Melartin, & Isometsä, 2005). Chronicity varies enormously, with some individuals experiencing a single episode of depression then many years with few or no symptoms; others may seldom experience remission of symptoms (American Psychiatric Association, 2013). The severity of depression may vary from five or more depressive symptoms (Major Depressive Disorder; American

Psychiatric Association, 2013) to fewer than five but at least two of the symptoms of major depressive disorder (Minor depressive disorder; Alexopoulos, 2005).

Sub-threshold forms of depression should not be dismissed as they may be associated with levels of psychological distress rivalling those of a full diagnosis (Blazer, 2003; Marottoli et al., 1997). In many cases, sub-threshold forms of depression are associated with decreased quality of life, dysfunction and disability, service utilisations, and perceived low social support (Hybels, Blazer, & Pieper, 2001). When sub-threshold depression does not include mood disturbance the prognosis is good, these individuals are no more likely to experience disability days (defined as: days during which all or part of the day is spent in bed due to illness/feeling ill) than those with no depressive symptoms, most people improve over a 12-month period, and only a small number go on to develop mood disturbance, even fewer go on to develop major depression (Broadhead, Blazer, George, & Tse, 1990).

6.3.2 Symptoms and Diagnosis

Many individuals experience periods of low mood at some point in their life, but they may not have depression. The features of depression are persistent low mood and/or loss of interest in activities. The severity of the depression is determined by the number and the severity of symptoms, as well as the degree of functional impairment. The Diagnostic and Statistical Manual of Mental Disorders fifth edition (DSM-5; American Psychiatric Association, 2013) states low mood or loss of interest and pleasure, and at least five out of nine of the following symptoms, should be present for at least 2 weeks and at sufficient severity for most of every day for a diagnosis of major depression:

1. Depressed mood most of the day, nearly every day, as indicated by either subjective report (e.g., feels sad, empty, hopeless) or observation made by

others (e.g., appears tearful).

2. Markedly diminished in interest or pleasure in all, or almost all, activities most of the day, nearly every day (as indicated by either subjective account or observation).
3. Significant weight loss when not dieting or weight gain (e.g., a change of more than 5% body weight in a month), or decrease or increase in appetite nearly every day.
4. Insomnia or hypersomnia nearly every day.
5. Psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down).
6. Fatigue or loss of energy nearly every day.
7. Feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick).
8. Diminished ability to think or concentrate, or indecisiveness, nearly every day (either by subjective account or as observed by others).
9. Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation with-out a specific plan, or a suicide attempt or a specific plan for committing suicide.

A diagnosis of minor depression (see above) can only be made in individuals without a history of major depression, dysthymia, bipolar, or psychotic disorders (Alexopoulos, 2005). Dysthymia is diagnosed when depression is chronic and persistent, such as when mood disturbance is experienced for two years or more (American Psychiatric Association, 2013). Marottoli and colleagues (1997) found driving cessation was associated with increased depressive symptoms during the six-year interval of data

collection, and while the duration of depressive symptoms is not clear, this suggests some ex-drivers may present with dysthymia.

A change in the DSM-5 from the DSM-IV (American Psychiatric Association, 2000) is the distinction between bereavement and a major depressive episode (MDE). The DSM-5 notes that responses to significant loss, such as bereavement, may resemble an MDE in that they may include feelings of intense sadness, insomnia, poor appetite, and weight loss. Bereavement, the loss of someone or something, is essentially different from MDE in that:

> in grief the predominant affect is feelings of emptiness and loss, while in MDE it is the persistent depressed mood and the inability to anticipate happiness or pleasure. The dysphoria in grief is likely to decrease in intensity over days to weeks and occurs in waves (American Psychiatric Association, 2013, p. 161).

Furthermore, bereavements preoccupation with recurrent and often unwelcome thoughts and memories of what has been lost is differentiated from the ruminative self-criticism and sense of helplessness and/or worthlessness feature of a MDE (American Psychiatric Association, 2013). Nonetheless, the presence of a MDE should not be discounted when bereavement is present. Clinical judgement based on the older adults' history should be used. This is of significance to clinicians faced with ex-drivers who present with feelings of intense sadness around no longer driving and significant losses resulting from driving cessation. Normal sadness and grief in response to no longer driving should be a consideration before a diagnosis of a depressive disorder is given. In some individuals the loss may provoke a major depression (Zisook & Shear, 2009). Therefore, the presence of bereavement comorbid with a MDE should be considered.

6.3.3 Assessment of Depression

When undertaking an assessment of depression it is important to consider past personal history and family history of depression and a thorough social history, as well as symptomology[5]. Readily available instruments widely used by clinicians to assess frequency/severity of depression in the general population are: the Centre for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977), the Beck Depression Inventory II (BDI-II; cf. Segal, Coolidge, Cahill, & O'Riley, 2008), and the Hamilton Rating Scale for Depression (HRSD; Hamilton, 1960). The Geriatric Depression Scale (GDS; Yesavage et al., 1982), however, is the most commonly used instrument for detecting depression in older adults (Snarski & Scogin, 2006). Older adults tend to underreport depression symptoms and it is recommended that, in addition to the older adult, information from an informant be included in the assessment procedure (Davidson, McCabe, & Mellor, 2009).

6.3.4 Differential Diagnosis and Comorbidity

Depression among older adults may be difficult to identify due to the prevalence of somatic symptoms and cognitive declines sometimes present with ageing and driving cessation (Anstey et al., 2006; Edwards, Lunsman, et al., 2009; Edwards et al., 2008). Many of the somatic symptoms common to depression (e.g., sleep disturbance) may be attributed to physical health conditions or the side effects of medication and vice versa. The overlapping of symptoms that occur in depression and dementia makes it difficult to differentiate between the two (Snarski & Scogin, 2006). Teasing apart the presenting symptoms is an important part of the assessment.

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[5] See Snarski and Scogin (2006) for a detailed and comprehensive discussion of assessing depression in older adults.

Between 23% and 47.5% of older adults with a depressive disorder diagnosis meet criteria for, or have a diagnosis of, an anxiety disorder (Beattie, Pachana, & Franklin, 2010; Beekman et al., 1995); indicating significant comorbidity. When depression is comorbid with other mental health issues, the condition that causes the most problems should be treated first. Treatment for one condition often helps the other.

6.3.5 Treatment Options

Treatments options for depression include psychological interventions and pharmacology. The client's preference and a number of other factors should influence the decision about which treatment option(s) to pursue. Mild depression can sometimes resolve without treatment (Ellis & Smith, 2002). Individuals with severe depression, which has persisted for a prolonged period and been resistant to previous interventions, may require a different approach to individuals with mild to moderate depression of shorter duration. For mild to moderate depression the choice of intervention may make little difference; it seems optimal outcomes may be more strongly attributed to the positive therapeutic alliance between clinician and client and the provision of therapy for a sufficiently long duration (Ellis & Smith, 2002). The often recommended intervention for depression, however, is CBT (Australian Centre for Posttrauamatic Mental Health, 2012). CBT, which focuses on thoughts and behaviours, is considered the 'gold standard' evidence-based treatment for depressive symptoms (Koder et al., 1996). For severe depression both a psychological intervention and pharmacological treatment ought to be considered (Ellis & Smith, 2002). There is also, however, support for ACT as an intervention for depression (Powers, Zum Vörde Sive Vörding, & Emmelkamp, 2009), and specifically the mindfulness component of the therapy (Kirk Warren. Brown & Richard M. Ryan, 2003). Older adults with dementia or other

conditions that affect understanding should be offered the same treatments as others with depression, however clinical judgment and flexibility may be required to adapt interventions to suit individual needs.

6.4 Cognitive Behavioural Therapy for Depression

6.4.1 Overview

Depressive symptoms may be experienced as a reaction to an external stressor (e.g., loss, such as loss of driving), and/or may emerge from the individual's pattern of responding to the environment (A. Freeman & Oster, 1998). Beck's cognitive model of depression explains the psychological basis of depression in terms of schemas (i.e., patterns of thinking), the cognitive triad (i.e., negative ways of thinking about oneself, one's future, and one's experiences), and errors in cognition (A. T. Beck et al., 1979). Clinical observations and experimental research involving the model led to the development of a therapy designed to treat all severity levels of depression. The therapy, Cognitive Behaviour Therapy (CBT), is based on the idea that one's beliefs and thoughts and how one behaves have an effect on the way one feels (A. T. Beck et al., 1979). Depressed individuals, the theory postulates, tend to view the world through a negative filter and experience negative thoughts, which can lead to maladaptive behaviour. The fundamental components of CBT are cognitive therapy and behaviour therapy. Cognitive therapy is oriented to the identification, challenge and modification/ management of core dysfunctional schemas and excessively negative thoughts about oneself, one's future, or the loss of something highly valued. The aim of cognitive therapy is to alleviate emotional distress by way of cognitive modification. The behavioural component of CBT is, in essence, behaviour modification that may be regarded as a series of small experiments designed to test the validity of cognitions about oneself. This can involve structured problem solving and activity scheduling. The aims of behaviour therapy are to test the validity of cognitions, minimise rumination, improve goal achievement, and increase positive and rewarding experiences (A. T. Beck et al., 1979).

6.4.2 Cognitive Model of Depression

Beck (1979) presents a diathesis-stress model of depression, in which cognitions play a central role. Cognitions are often described as automatic thoughts, though cognition may refer to thought or a visual image, and individuals may not be aware of their cognition unless attention is focused on it. Furthermore, most of the time, cognitions are viewed by the individual having the thoughts as being accurate and representing reality, and are therefore to be believed (A. T. Beck et al., 1979). The model describes complex interconnections between ways of thinking, external events, and emotions. The organisation of cognitions, referred to as schemas, contribute distally to an individual's experience of depression in the sense that they are a global style of information processing that, when dysfunctional and, together with adverse life events make one vulnerable to depression (A. T. Beck & Alford, 2009; A. T. Beck et al., 1979; Dozois & Beck, 2008; A. Freeman & Oster, 1998). During periods of low stress dysfunctional schema are latent, but may be reactivated by life events that are similar to the conditions under which the schema were formed (Solomon & Haaga, 2004). The content/themes of cognitions, specifically negative cognitions referred to as the cognitive triad (A. T. Beck et al., 1979), contribute proximally to an individual's experience of depression in the sense that negative ways of thinking maintain depressive symptoms when stressful events are experienced (A. Freeman & Oster, 1998). Less stress may be required to trigger depressive symptoms when the tendency to engage in negative ways of thinking is strong and more stress may be required to trigger depressive symptoms when the tendency is weaker (Dozois & Beck, 2008).

6.4.2.1 Schemas

Schema are formed through childhood experiences and learning and tend to be stable components of cognitive organisation (Kwon & Oei, 1994). They are patterns of

thinking that influence the way information about the environment is structured and organised, which affect the laying down and retrieval of information (A. Freeman & Oster, 1998). Incoming information is compared with existing knowledge; if the information coming in is similar enough to existing knowledge the new information is absorbed into existing knowledge (assimilation), if the information coming in is sufficiently dissimilar to existing knowledge then existing knowledge is altered to fit with the new information (accommodation)[6] (Piaget, 1976). This is a normal and efficient human process for dealing with myriad information and complexities of the environment. Untested schemas are the assumptions one makes about the environment, they influence one's thoughts, behaviours, and mood, they determine one's approach to new situations, and one's meaning making (A. T. Beck et al., 1979; Dozois & Beck, 2008; A. Freeman & Oster, 1998). Dysfunctional schema form, what Beck referred to as, a 'negative filter' (Solomon & Haaga, 2004) through which the self, one's experiences and the world are viewed. Information processing through a negative filter leads to negative cognitive biases.

According to the cognitive theory of depression, when the usually adaptive processing of information using schema produces errors, through inappropriate application of existing schema and failure to accommodate to unique features of experience, the resultant cognitive distortions (A. T. Beck et al., 1979) lead to emotional distress and maladaptive behaviour. Beck identified multiple forms of cognitive distortion. Two examples of cognitive distortion are 'arbitrary inference' and 'black-and-white thinking' (A. T. Beck et al., 1979, p. 100). The former occurs when conclusions are drawn that are not congruous with objective evidence; the latter involves thinking in polarised and absolute terms. Participant 149 interviewed for the

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[6] Piaget's use of the terms assimilation and accommodation refer to processes of cognitive adaptation and are not to be confused with use of these terms to denote modes of coping in the Assimilative and Accommodative Model of Coping.

second study (see Chapter 4) exhibited both these cognitive distortions: for example, he said: "your competency is being questioned *all* the time", "You *always have to* justify yourself to others", and "*life stops* the minute that you're not allowed to drive anymore". The cognitive distortions are italicised. P.149 assumes people are looking down on him when a more neutral/balanced interpretation could be that some people may be interested and concerned. In describing his situation he selects the extreme negative categories, such as life for him being over. While these are specific examples related to driving cessation experiences, combined they may be suggestive of patterns of interpreting information in distorted ways.

6.4.2.2 Cognitive triad

The cognitive triad consists of negative ways of thinking about oneself, one's future, and one's experiences, which are idiosyncratic to individuals who are likely to experience depression (A. T. Beck et al., 1979). Negative views of oneself manifest in thoughts about oneself as someone who is defective and/or inadequate and is therefore undesirable and worthless. Unpleasant experiences are attributed to some fault within oneself: the individual has a tendency to be self-critical and underestimate their own abilities and qualities. For example, an ex-driver who mistakenly believes they are useless in all respects because they no longer drive will feel inadequate. Negative view of the future is dominated by the belief that one's current difficulties/distress will be unremitting indefinitely. There is an expectation that efforts towards change will fail. For example, ex-drivers who erroneously believe that they are trapped, because they no longer drive, and expect efforts to change their situation will burden others will be unlikely to commit themselves to taking corrective action. Finally, ongoing experiences tend to be interpreted negatively. The environment is viewed as excessively demanding of the individual and seen to place overly challenging barriers in the way of goal attainment. Facts are selected or modified to support a priori negative conclusions. For

example, no longer driving is experienced negatively, public transport timetabling is seen as too inconvenient to facilitate out of home activity.

According to the cognitive model of depression, the outcome of negative thinking styles, referred to by Beck as negative automatic thoughts, is depressive symptomology, such as low mood (A. T. Beck et al., 1979; Dozois & Beck, 2008). For example, an ex-driver who erroneously thinks they are a burden on friends and family who provide them with transport will react with the same negative feelings that would likely occur if they actually were a burden.

6.4.2.3 Errors in cognition

Beck proposed that dysfunctional schema, leading to cognitive distortions, constitute a vulnerability factor for depression, and typically negatively themed attributions and expectancies of oneself, one's future, and one's experiences may maintain depression (A. T. Beck et al., 1979; Dozois & Beck, 2008). Figure 12 displays (a) Becks diathesis-stress model of depression involving dysfunctional schema, life experiences, negative automatic thoughts, and depressive symptoms and (b) how the model can be used to conceptualise driving cessation and increased depressive symptoms. The theory posits that there is "a close relationship between the way a person thinks about himself, the environment, and his future and his feelings, motivations, and behaviour (A. T. Beck et al., 1979, p. 143). This is based on two premises. First, individuals vulnerable to depression have a relatively closed system of logic and reasoning. Individuals vulnerable to depression and those who are depressed tend not to identify the rigid patterns and themes of their thinking or distance themselves from their cognitions. They, therefore, fail to adopt alternative ways of reasoning that may lead to reconceptualising problems previously seen as being unsolvable.

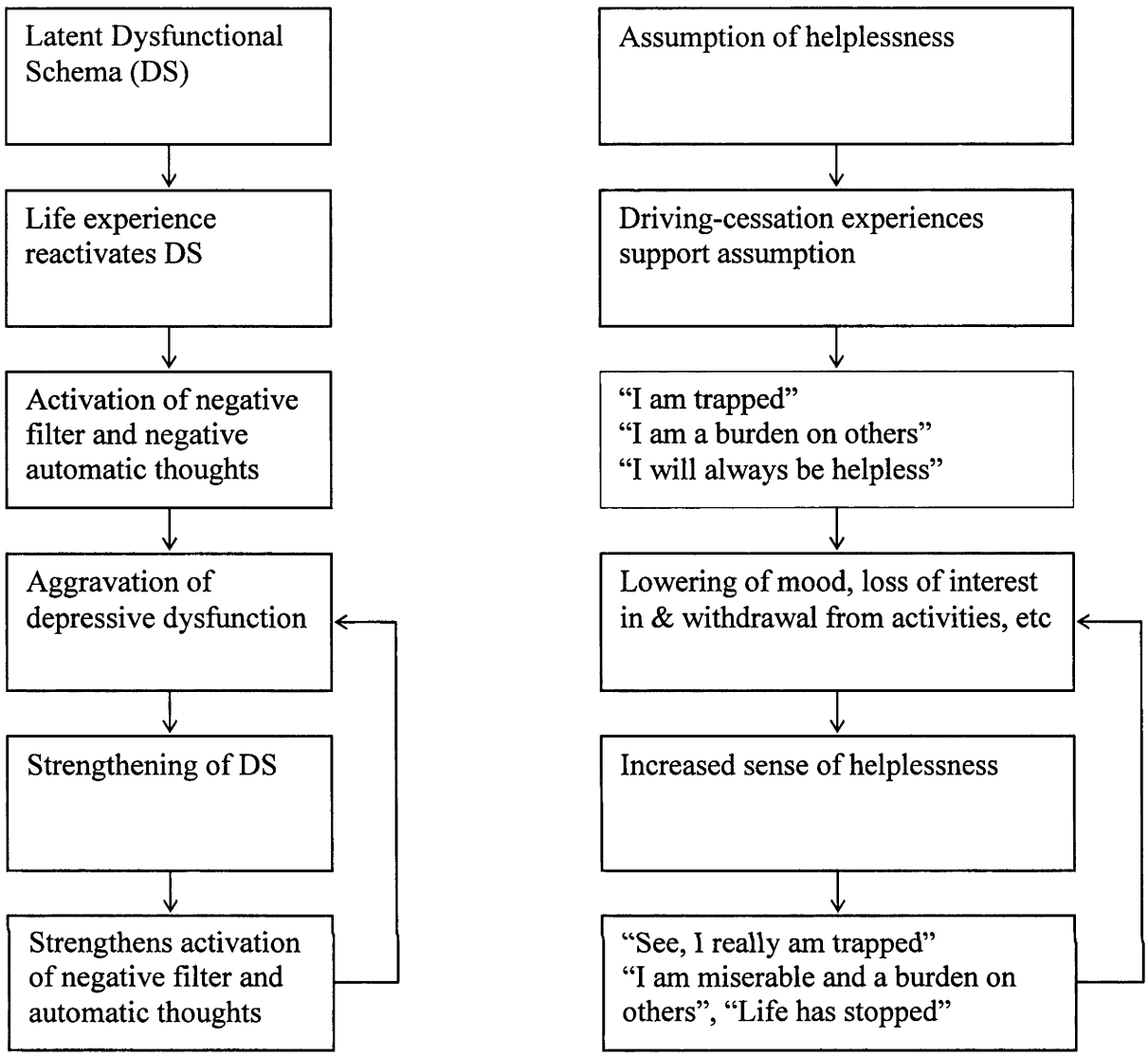


Figure 12. Beck's (1979) Cognitive Theory of Depression and an example of how it relates to driving cessation and increased depressive symptoms.

Second, depressed individuals tend to interpret events, which may be neutral or positive, negatively and thereby maintain their depression (A. T. Beck et al., 1979). By changing the content of one's thoughts one may change the way one feels.

Beck (A. T. Beck & Alford, 2009; A. T. Beck et al., 1979) proposed that dysfunctional schema formed through childhood experiences and learning remain latent

during periods of low stress but may be reactivated by life experiences, which appear to support them. Dysfunctional schema once reactivated lead to systematic distortions of appraisal of past, present and anticipated experiences; experiences are viewed through a negative filter such that they conform to the dysfunctional schema. Greater attention and weight is given to negative cognitions/automatic thoughts regarding oneself, one's experiences, and one's future. Access to previously available positive cognitions is inhibited. Systematic distorted appraisal and excessively negative automatic thoughts, one aspect of depressive dysfunction, lead to behavioural and emotional functioning declines. The first signs of depressive dysfunction are experienced. Cognitive, behavioural and emotional decline provides evidence in support of the underlying dysfunctional schema, which in turn strengthens the dysfunctional schema and negative automatic thoughts, and further inhibits access to positive cognitions. In turn, depressive symptoms intensify. Thus, a loop of negative feedback is created, cognitive and behavioural symptoms reinforce each other and maintain depressive dysfunction (A. T. Beck et al., 1979; Solomon & Haaga, 2004)[7].

6.4.3 CBT Case Formulation of Depression Post-Driving Cessation

A core component of Beck's cognitive model of depression is the role of intensely stressful events, such as a significant loss (A. T. Beck et al., 1979). Recent research suggests less intensely stressful events (e.g., loss of a job or confidant, or legal problems) may be sufficient to trigger depression (Dozois & Beck, 2008). Given the relationship between driving cessation and depression (Fonda et al., 2001; Marottoli et al., 1997; Ragland et al., 2005; Windsor et al., 2007) driving cessation seems to be a sufficiently stressful event to trigger depression. According to the model, there are a

[7] Most recently, Beck and others have considered possible genetic and neurobiological causal pathways to depression (e.g., genetic vulnerability to depression), which correlate with the model (Dozois & Beck, 2008), a discussion of which exceeds the scope of this thesis.

number of pathways through which driving cessation may trigger and maintain depression (see Figure 12 (b), above).

Conceptualising an ex-driver's presentation of depression using the cognitive model of depression as a theoretical framework involves constructing a detailed formulation of the relationship of distressing emotions to cognitive processes (Beck, 1979). Case formulation then provides rationale for the treatment. The clinician should ask themselves a series of questions, the responses to which form hypotheses to be tested. First, explore with the ex-driver the nature of the problem. Examining the problem may point to underlying schema, such as "I'm helpless". Second, seek to understand the ex-driver's causal model of their depression. Specifically, what they attribute their depression to and what their expectations are regarding its course and treatment. For example, they may be thinking they are emotionally distressed because "I am trapped", believe "I'm a burden on others", and expect "I'll always be helpless". Third, explore interactions between the ex-driver's cognition, behaviour, and driving cessation while being open to other explanations for the depressive symptomology. Collaboratively, the clinician and ex-driver identify and evaluate the evidence for how the ex-driver's cognition (e.g., negative biases), behaviour (e.g., withdrawal) and environment (e.g., reduced transportation options) maintain the depression. Case conceptualisation may end here, however, for a comprehensive case formulation, how the ex-driver's cognitive biases and distortions developed should be explored; the ex-driver's schemas, according to the model, likely explain current and past events.

6.4.4 Cognitive Behavioural Therapy for Depression

Cognitive Behavioural Therapy (CBT) to treat depression has been developed through clinical observation and empirical research (A. T. Beck et al., 1979; A. Freeman & Oster, 1998) and has received empirical support as an effective intervention for older

adults (Koder et al., 1996). During the early stages of developing his model of depression, Beck observed that when depressed individuals reappraised and corrected their erroneous or distorted interpretations of experiences depressive symptoms eased and eventually remitted (Dozois & Beck, 2008). CBT works from a skill building or coping model to intervene at three levels of cognition: the readily accessible negative automatic thoughts at the surface, the systematic cognitive bias at a deeper level, and below that, dysfunctional schema. The clinician supports the individual to learn or draw on existing behavioural and cognitive strategies to gain insight into their negative automatic thoughts, how these maintain depression, and how to manage them to alter mood, and to modify the schema that predispose the individual to depression (A. Freeman & Oster, 1998). While the focus of the cognitive model of depression is cognitions, the focus of CBT is symptoms, and initial attention is given to behavioural and motivational issues. Then attention turns towards content and patterns of thinking: specifically, naming, recognising, recording and testing specific cognitions. Finally, basic assumptions resulting in vulnerability to depression are explored and modified.

6.4.4.1 Behavioural techniques

Depressed individuals often get caught in a cycle whereby reduced level of activity leads to labelling one's self as ineffectual. This, in turn, leads to further discouragement and withdrawal, which leads to a reduction in self-esteem (Beck, 1979). This may be especially pertinent to ex-drivers who experience reduced levels of out-of-home activity (Marottoli et al., 2000). It may be that attempts at increasing level of out-of-home activity rely on transportation provided by family or friends (Bonnel, 1999a), and taking lifts may reinforce helplessness and sense of burden cognitions (Cousineau et al., 2003). Clinicians inexperienced in CBT may consider initiating behaviour modification that may reinforce negative cognitions is counter-productive. However, such behaviour modification helps identify specific negative cognitions/appraisals, and

this is important because it provides the opportunity for the ex-driver to evaluate and then change them. Behaviour modification in CBT is not an end in itself; rather it is a means to achieve cognitive modification, which in turn is the means to relieving emotional distress (A. T. Beck et al., 1979). Initially small, graded experiments are carried out to test negative cognitions. For example, cognitions regarding being 'trapped' may be modified by supporting the ex-driver with problem solving activities to find alternative modes of transport and finding out-of-home activities to engage in that are not dependent on transportation. Modification of behaviour does not automatically lead to modification of negative cognitions. A degree of insight, or learning (Holtforth et al., 2007) needs to be achieved; behaviour modification must form a corrective experience, such that the individual comes to acknowledge that particular cognitions are erroneous. Through behavioural experiments the clinician and ex-driver seek to discover the faulty meaning the ex-driver has been ascribing to their experiences, modify this, and identify the real barriers to the ex-driver attaining achievable goals, (e.g., attitudes towards alternative modes of transport). In addition, the clinician supports the ex-driver in finding ways of overcoming these barriers (Holtforth et al., 2007).

6.4.4.2 Cognitive techniques

Cognitive modification initially involves monitoring thoughts, such as "I'm trapped" and "I'm helpless", which are associated with distress. Then, teaching individuals techniques for systematically challenging the accuracy of evidence supporting those thoughts. Following on with the driving cessation example, the aim is to assist the ex-driver to achieve a balanced interpretation of driving cessation experiences, perception of themselves as an ex-driver, and/or their future, in accordance with the aims of CBT (A. T. Beck et al., 1979). Cognitive techniques include: questioning, identifying illogical thinking, and identifying and challenging the rules the

ex-driver, for example, applies to organising their experiences of driving cessation. 'Reality-testing' is intrinsic to cognitive therapy (A. T. Beck et al., 1979, p. 43).

6.4.5 Depression and Coping with Driving Cessation

As stated above, during periods of high stress, which are similar to the conditions under which schemas were formed, latent schema may be reactivated (Solomon & Haaga, 2004). These global styles of information processing influence the way information about the environment is structured and organised (A. Freeman & Oster, 1998) and determine one's approach to new situations, and one's meaning making (A. T. Beck et al., 1979; Dozois & Beck, 2008; A. Freeman & Oster, 1998). Individuals may not be aware of their cognitions, unless attention is focused on them. Much of the time, cognitions, such as 'I am helpless', are viewed by the individual as being accurate and representing reality, and are therefore to be believed (A. T. Beck et al., 1979). Left untested, schemas are assumptions about the world that may be erroneous. With dysfunctional schema, one's view of the future is overly negative; the belief that one's current difficulties/distress will be unremitting, and expectation that efforts towards change will fail, dominates cognition. Under such conditions, an individual withdraws from assimilative coping, such as problem solving, and general activity (A. T. Beck & Alford, 2009; A. T. Beck et al., 1979).

The aim of cognitive therapy is to alleviate emotional distress by way of cognitive modification. The behavioural component of CBT is, in essence, behaviour modification to test the validity of cognitions about oneself. This can involve structured problem solving and activity scheduling. The aims of behaviour therapy are to test the validity of cognitions, minimise rumination, improve goal achievement, and increase positive and rewarding experiences (A. T. Beck et al., 1979). Behaviour modification, as well as providing evidence with which to balance negative cognition, can be

supportive of assimilative coping strategies, such as problem solving activities (e.g., finding alternative modes of transport and finding out-of-home activities to engage in that are not dependent on transportation).

The process towards cognitive modification, which involves self-monitoring thoughts, feelings and behaviours, requires self-reflection on the part of the individual. This may be facilitated through empathy and active listening on the part of the clinician (Holtforth et al., 2007). Similarly, the switch from assimilative to accommodative processes, which involves cognitive appraisal and control beliefs, requires self-reflection. The process of switching between the two modes of coping relies on awareness and a realistic appraisal of whether circumstances are open to modification and the associated costs (Brandtstädter & Renner, 1990a, 1992). An inhibition of assimilative efforts and resignation follows from a negative evaluation. From the cognitive theory of depression perspective, dysfunctional schema form a negative filter through which the self, one's experiences and the world are viewed, which produces errors and cognitive distortions, leading to maladaptive behaviour and emotional distress (see above, Figure 12) (A. T. Beck et al., 1979; Dozois & Beck, 2008; A. Freeman & Oster, 1998; Solomon & Haaga, 2004). Changing the content of one's thought, the core component of CBT, requires psychological flexibility. The CBT clinician and client work collaboratively to investigate the content of the client's thinking (specifically the client's understanding or misunderstanding and interpretation of driving cessation experiences) and this may work towards psychological flexibility. However, when psychological rigidity is part of the problem an Acceptance and Commitment Therapy approach should prove efficacious.

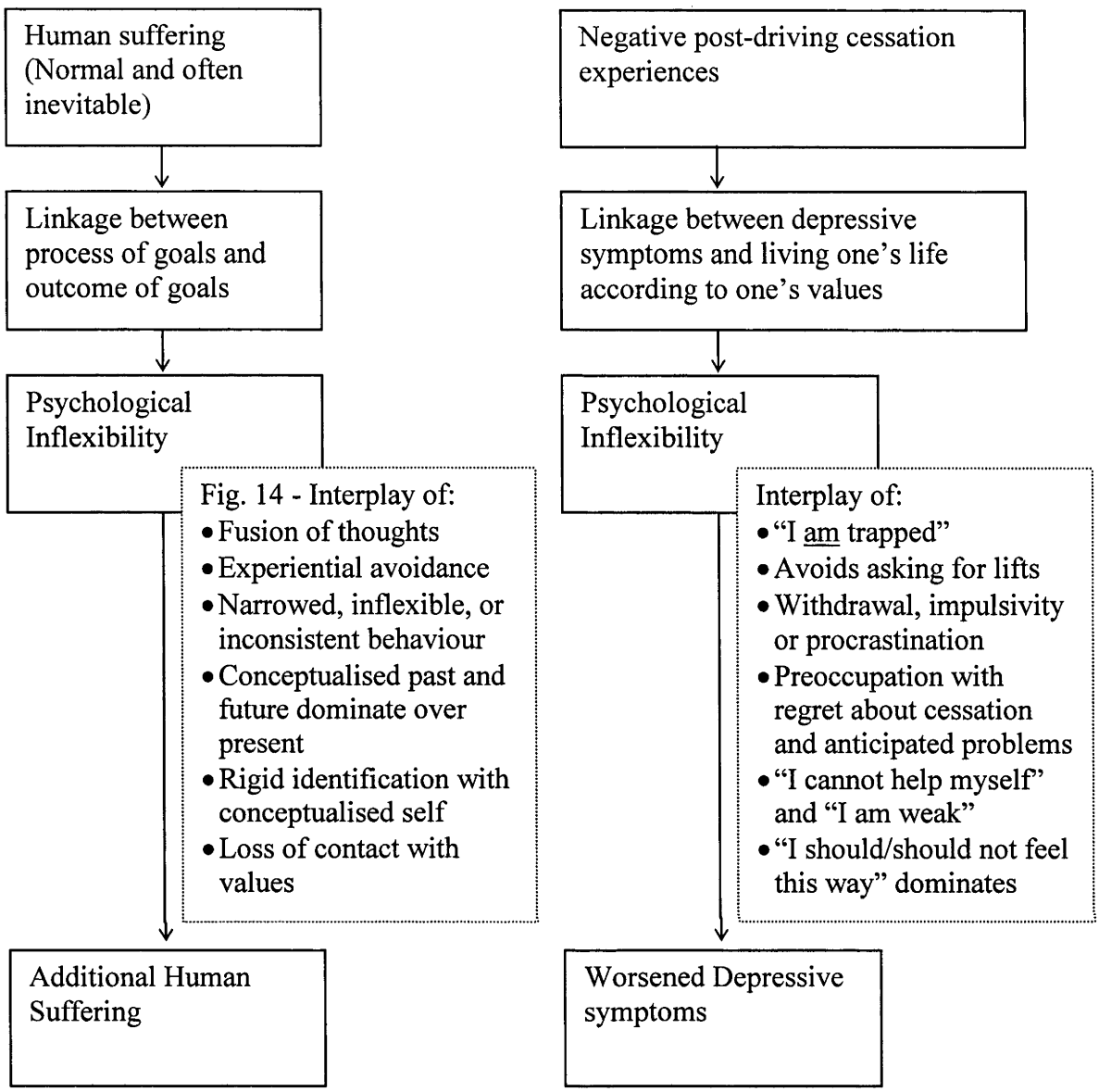
6.5 Acceptance and Commitment Therapy for Depression

6.5.1 Overview

In contrast to Beck's cognitive model of depression, in which emotional distress is viewed as a syndrome, Acceptance and Commitment Therapy (ACT) is founded on the assumption that emotional distress is normal and inevitable (Harris, 2006). The cognitive model of depression (discussed above) postulates that dysfunctional and overly negative cognition lead to and maintain the emotional distress associated with depression, ACT proposes human language and psychological inflexibility leads to and add to emotional distress (Harris, 2006). ACT serves to expose language as a tool used by individuals rather than representing facts to be believed and rules to be obeyed, and highlights the vast relational networks of words, images, emotions, bodily sensations, and memories. ACT also works towards building psychological flexibility (Luoma et al., 2007). Where the goal of CBT is to modify cognitions to alter mood and alleviate other depressive symptoms, ACT proposes that attempts at avoiding emotional distress simply become part of the problem and create additional suffering (A. T. Beck et al., 1979; A. Freeman & Oster, 1998; Harris, 2006; Luoma et al., 2007). ACT therapy provides alternative ways of responding to psychopathology that involves mindfulness strategies, ways of getting in touch with one's values, and ways of engaging in committed action towards living a rich and meaningful life (Harris, 2006; Luoma et al., 2007).

6.5.2 ACT Model of Psychopathology

The ACT model of psychopathology (which is not specific to any one psychopathology, such as depression) is based on behavioural principles, including language and cognition, according to Relational Frame Theory (RFT; Hayes, 2004). Of particular interest are private behaviours, those that are unobservable, such as thinking, as well as public (observable) behaviours, such as talking. RFT (discussed below, in section 6.5.2.1) describes the development of language that both reflects and structures the world through the flexibility of relational skills. The left portion (a) of Figure 13, below, displays the ACT model of psychopathology. From an ACT perspective, the interplay between language and cognition and life circumstances may be supportive of long-term valued goal attainment, or may hinder persistence in goal pursuit (Luoma et al., 2007). Language is adaptive in that it facilitates communication and problem solving. However, it is the primary source of clients' presenting problems when it is used ineffectively or in problematic ways, such as when individuals attempt to solve problems originating within themselves in the same way they attempt to solve problems in the external world. Attempts designed to solve internal problems, such as attempts to control how one feels (referred to as "experiential avoidance"; Luoma et al., 2007, p. 10) become the problem (Hayes, Luoma, Bond, Masuda, & Lillis, 2006). Experiential avoidance, a reluctance to endure private experiences such as painful emotions (Chawla & Ostafin, 2007), is one of six processes (discussed in section 6.5.2.2, below); the interaction of these processes creates psychological rigidity, which contributes to or causes the bulk of psychopathology (cf. Hayes et al., 2006). Experiential avoidance may be effective in the short term but over time it can be costly and self-destructive, and is associated with depressive symptoms (Tull, Gratz, Salters, & Roemer, 2004).



(a) ACT model of psychopathology (b) Driving cessation and depression

Figure 13. Acceptance and Commitment Therapy conceptualisation post-driving cessation increases in depressive symptoms.

6.5.2.1 Relational Frame Theory

ACT was developed out of Relational Frame Theory (RFT) (Harris, 2006). RFT describes the complex system of relationships individuals construct between words, objects, people, thoughts, and in fact anything within our consciousness (Hayes, 2004). The act of creating a relationship is referred to as relational framing (Hayes, Barnes-

Holmes, & Roche, 2001). Relational framing is a behaviour, it occurs when certain relationships are derived in certain contexts based on past experiences. At a basic level, relational framing involves forming relationships between word and object (i.e., learning names). For example, being shown an object and hearing it called by its name. With repetition the object-name relationship is learnt. The relationship in the opposite direction, the name-object relationship, is learnt when an object is identified from its name, that is, the name comes to represent the object, and tends to be derived through inference. More complex relational framing involves increased number and abstraction of connections, for example, familial relations.

The link between RFT and psychopathology is the bi-directional nature of relational framing and the tendency for individuals to attach emotional content to language generally, and specifically to one's private experiences (thoughts, feelings, memories, bodily sensations) (Hayes, 2004). The core issue is that just as a name may evoke an image of the named object, a word may evoke distress when that word has been connected with distress. In the same way, recalling unpleasant and unwelcome private experiences and anticipation of unpleasant and unwelcome private experiences may elicit the same emotional distress response as if the private experience were being experienced there and then. For example, when Mr. X gave up driving he felt very sad, now, whenever he thinks about no longer driving he feels sad.

RFT goes on to posit that attempts to distract oneself from or avoid emotional distress may become connected to the original word such that the word and the attempts at distraction become associated the emotional distress one was trying to avoid (Hayes, 2004; Hayes et al., 2006). For example, whenever Mr. X thinks about no longer being able to drive he tries to distract himself from the unpleasant and unwelcome thoughts and feelings by listening to Mozart. However, over time, relational framing links listening to Mozart with thoughts about no longer being able to drive and both evoke

unpleasant and unwelcome thoughts and feelings. RFT refers to this network of connections between thoughts about no longer being able to drive, listening to Mozart, and unpleasant and unwelcome thoughts and feelings as a frame of coordination, each may evoke the other. It is due to this bi-directionality that as humans:

> we can judge ourselves and find ourselves to be wanting; we can imagine ideals and find the present to be unacceptable by comparison; we can reconstruct the past; we can worry about imagined futures; we can suffer with the knowledge that we will die (Hayes et al., 2001, p. 215)

An individual may have little contact with direct sources of psychological suffering (e.g., driving cessation occurs once) but through language (relational framing and cognition) suffering may be evoked often and maintained indefinitely.

6.5.2.2 Psychological Inflexibility

The underlying feature of psychopathology, according to ACT, is psychological inflexibility (Harris, 2006; Luoma et al., 2007). Figure 14 displays possible paths of interaction between six processes that leads to psychological inflexibility, the processes are: experiential avoidance, cognitive fusion, dominance of conceptualised past and future with limited self-knowledge, attachment to the conceptualised self, inaction/impulsivity/avoidant persistence, and lack of clarity or contact with values (Luoma et al., 2007). Experiential avoidance functions to control/avoid how one thinks/feels and may take many forms: internal avoidance (e.g., excessive worry), overt emotional control (e.g., consuming alcohol), and or avoidance behaviours (e.g., withdrawal from places/situations/others). This occurs when an individual identifies unpleasant and unwelcome private experiences, such as negative feelings, as a problem. Cognitive fusion occurs when one gets caught up in the content of ones thoughts, such as one's evaluation of oneself (e.g., 'I am weak), one's experiences (e.g., 'I should not

feel this way'), and/or one's circumstances (e.g., 'I am trapped'), which are taken to be factual. When fused with one's thoughts, the individual is unable to experience the present moment (the here and now) and may miss opportunities to engage in life. Past and future dominate over the present moment, when there is experiential avoidance and fusion with thoughts, pulling one away from direct experiences. Individuals lose touch with on-going experiences such that they have limited self-knowledge of what they are thinking, feeling or sensing in the present moment (Luoma et al., 2007).

Strong attachment to one's conceptualised self (i.e., one's autobiographical stories and self-evaluation) involves rigid identification with a particular way of viewing oneself (Luoma et al., 2007). Problems, such as rigidity in behaviour, arise when one is attached to overly positive (e.g., 'I'm a happy person) or overly negative (e.g., 'I'm a weak person') self-conceptualisations and when one distorts, or misinterprets, circumstances to make them appear consistent with the conceptualised self. Rigidity in behaviour can lead to engaging in effective short-term but self-defeating longer-term action (i.e., impulsivity and avoidant persistence) or inaction (Hayes et al., 2006; Luoma et al., 2007). The interplay of fusion with one's thoughts and conceptualised self and experiential avoidance puts distance between the individual, their values, and their goals. Values and goals give meaning and direction to life and living according to ones values and goals gives life its vitality. ACT proposes that each of these six processes and the interplay between them hinders psychological flexibility, leading to a relatively narrow and unsatisfying life (Luoma et al., 2007).

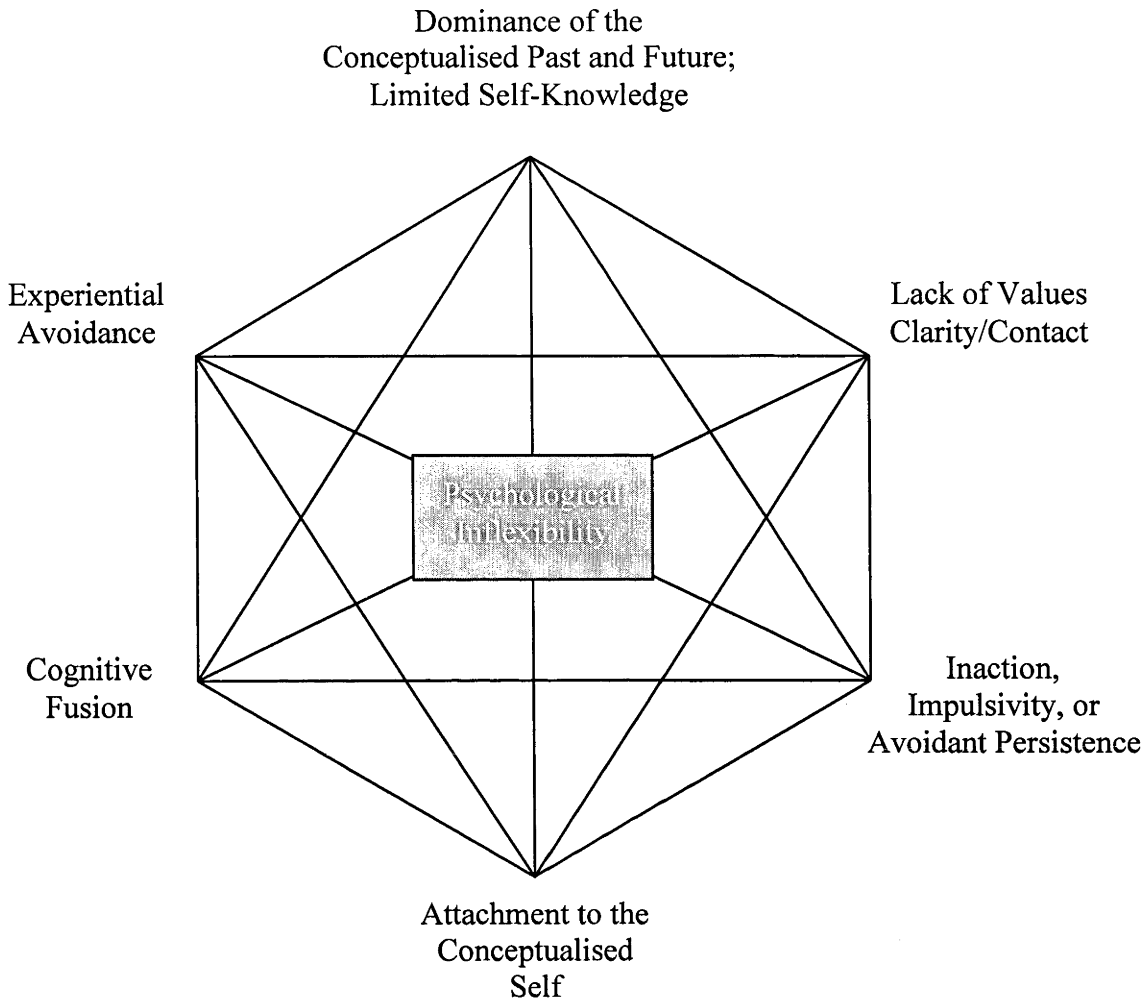


Figure 14. Acceptance and Commitment Therapy model of psychopathology (reproduced from: Luoma, Hayes, & Walser, 2007, p. 12).

6.5.3 ACT Case Formulation of Psychopathology Post-Driving Cessation

A defining feature of ACT is that general principles of behaviour are used to understand and explain a broad selection of client presenting issues rather than specific mental health diagnoses (Luoma et al., 2007). The right portion (b) of Figure 13, above, displays a case conceptualisation of post-driving cessation and increases in depressive symptoms from an ACT perspective. Incorporated into the figure is the interaction

between the six processes that lead to psychological inflexibility (see above, figure 14). Functional analysis, informed by the six ACT processes, is conducted to explore the function of the client's behaviour. Specifically, the clinician seeks to understand the learning history of the client (what has given rise to the client's behaviour) the current life context of the client (why a particular current behaviour is occurring in a particular context) and what maintains that behaviour. Application of these principles to a client's behaviour (both public and private) and the understanding this produces then guides treatment.

ACT case conceptualisation focuses on the function of a client's behaviour, rather than its form. This is an important distinction; research indicates similar forms of behaviour may perform different functions and differing forms of behaviour may perform the same function (Hayes et al., 2006). A common function of behaviours in ACT theory is avoidance of unpleasant and unwanted experiential states. ACT case conceptualisation also takes into consideration the presenting problem(s) as the client understands it, what private experiences the client is fused with, the domains and ways in which the client's behaviour is inflexible and narrowed. The clinician and client explore the cost of behaviours in terms of clarity and contact with values and quality of daily living (Luoma et al., 2007).

6.5.4 Acceptance & Commitment Therapy for Depression

ACT interventions focus on acceptance and commitment: acceptance of unpleasant and unwelcome private experiences beyond personal control and commitment to living life according to one's values. ACT is predominantly a behavioural therapy (Powers et al., 2009). The goal of the therapy is to support the client in living a life (through committed action) that is meaningful to them (according to their values), while accepting the suffering that is a normal and inevitable part of

human existence (Luoma et al., 2007). ACT interventions target maladaptive experiential avoidance and emotional control through behaviour modification (Harris, 2006), on the premise that suffering is normal and inevitable and additional suffering is generated by experiential avoidance and attempts at emotional control. The aim is to develop psychological flexibility through a number of mindfulness strategies (e.g., defusion, acceptance, present moment focus, observing self) and core principles (e.g., values and committed action).

6.5.4.1 Mindfulness strategies

Mindfulness is often described in terms of consciously bringing one's awareness to "the here-and-now experience" as if one were an open and curious observer (Harris, 2006, p. 71). More specifically, mindfulness refers to the quality rather than the focus of awareness. It is thought of as an enhanced openness or receptivity of undivided attentional sensitivity to and awareness of moment-to-moment internal (psychological or somatic) and external (environmental) sensations/cues, without cognitive evaluation, bringing clarity and vividness to one's current experiences (K. W. Brown & Richard M. Ryan, 2003). The aim is to transform the relationship one has with one's distressing thoughts and feelings to reduce their impact and influence on one's life. It is not the aim of mindfulness to control or eliminate suffering, however, this may be a by-product as the impact and influence of distressing thoughts and feelings is reduced.

There are four mindfulness strategies: defusion, acceptance, present moment focus, and observing self. Defusion targets cognitive fusion. Clients are taught to distance themselves from and observe language, without getting caught up in believing, challenging or seeking to modify it. In time the client comes to understand that thoughts come and go in a constantly changing stream of words and images (Harris, 2006). Defusion strategies create distance between thoughts and the individual having those thoughts, no attempt is made to modify them. Thoughts are seen simply as words

or pictures rather than a truth or rule to be adhered to. Acceptance involves creating room within oneself for the unpleasant private experiences one usually seeks to avoid, letting them come and go without paying them undue attention. Unpleasant private experiences are observed with openness and curiosity and allowed to be as they are; no attempt is made to push them away: this is a form of exposure. The individual remains psychologically present in the midst of distressing private experiences. Present moment focus, as the name suggests, involves focusing ones attention in the present moment rather than ruminating on the past or worrying about the future. Attention is focused on the senses during any activity the individual is fully engaged in, such as breathing or eating, or any other activity, rather than one's own thoughts and feelings. Lastly, observing self refers to the individual gaining access to that part of him or her 'self' that is unchanging, enduring, and cannot be harmed. The individual experiences directly that they are not their thoughts, memories emotions, or sensations, which are peripheral to the "transcendent self" and in a constant state of flux (Harris, 2006, p. 75). Through each of these mindfulness strategies the relationship one has with one's own private experiences is altered rather than the private experiences themselves.

6.5.4.2 Core principles

Before one can commit to taking action towards living a rich and meaningful life, there may need to be some clarification of what is valued and the kind of life one wants. Once the characteristics of a rich and meaningful life have been identified (e.g., engaging in out-of-home activities) specific goals in line with the individual's values are set (Luoma et al., 2007). The client is then supported to take effective action towards achieving those goals, through evaluation of the costs of not taking action. Taking action towards living a rich and meaningful life is a form of exposure. Initially, goals are simple and should be achievable (e.g., the ex-driver asking for a lift). Subsequent goals should be increasingly challenging (e.g., the ex-driver asking for a lift

for a time that suits them). Mindfulness skills continue to be practiced and utilised in response to distressing thoughts and feelings (e.g., "I will be a burden" and anxiety) that draw attention away from engaging in a rich and meaningful life. Unpleasant and unwelcome thoughts, feelings and memories will continue to arise, however, they will be given less credence and attention, and they will have less impact upon the individual.

6.6 Psychological Interventions and Well-Being

A large number of studies demonstrate the efficacy of Cognitive Behaviour Therapy (CBT) as an intervention for treating depressive symptoms and there is growing support for the effectiveness of Acceptance and Commitment Therapy (ACT) (Butler, Chapman, Forman, & Beck, 2006; Powers et al., 2009; Tolin, 2010). CBT is widely regarded as the 'best' or 'gold-standard' psychological intervention for mood disorders (Forman, Herbert, Moitra, Yeomans, & Geller, 2007; Koder et al., 1996; Tolin, 2010). In the treatment of depression, post-treatment and at follow-up, CBT is more effective than psychodynamic therapy, antidepressants, no-treatment, wait list, and placebo controls. It is equally as effective as ACT and behaviour therapy. But it is no more effective than interpersonal or supportive therapies (Butler et al., 2006; Forman et al., 2007; Tolin, 2010). Follow-up findings suggest CBT produces longer-term effects than pharmacotherapy (Butler et al., 2006). ACT is an effective intervention for treating depressive symptoms (Forman et al., 2007). However, to date, there are too few studies to determine whether ACT is more or less effective than other psychotherapies, such as CBT, in treating depression (Forman et al., 2007; Hayes et al., 2006; Powers et al., 2009).

While CBT and ACT produce similar improvements in depressed individual's well-being, the process through which change is affected seems to differ (Forman et al., 2007). Research suggests it is changes in the processing of depression-related material rather changes in belief in depressive thought (Teasdale et al., 2001) that reduces symptomology among depressed individuals who receive CBT. Whereas, distancing oneself from thoughts, emotions, and sensations, which support adaptive coping processes (Garland, Gaylord, & Park, 2009), and acceptance and taking action (Forman et al., 2007) facilitate well-being among depressed individuals who receive ACT.

Specifically, through mindfulness meditation, attention focuses one's conscious awareness on one's private experiences to bring heightened sensitivity to them; through openness and curiosity, one's conscious awareness expands, which facilitates not only self-awareness but also the assimilation of thoughts and feelings (K. W. Brown & Richard M. Ryan, 2003). Such openness may enhance need satisfaction by facilitating the choice of behaviours that are consistent with ones values (Deci & Ryan, 1980). Finally, an assumption of Brandtstädter and colleagues Assimilative and Accommodative Model of Coping (Brandtstädter & Renner, 1990a, 1992; Brandtstädter & Rothermund, 2002; Rothermund & Brandtstadter, 2003) is that individuals are self-aware (Grant et al., 2002). However, ACT posits it is a lack of self-awareness through avoidance of private experiences that is a key factor contributing to psychological distress. ACT addresses a lack of self-awareness though mindfulness strategies. ACT may improve well-being through mindfulness strategies that facilitate adaptive accommodative coping.

6.7 Policy Implications

Older adults' need for psychological health services are not sufficiently met; those with mental health issues are less likely than younger age groups to obtain psychological health services and, when mental health services are received they are more likely to be provided by general medical care rather than a mental health specialist (Bogner, de Vries, Maulik, & Unutzer, 2009; Crabb & Hunsley, 2006; Karel, Gatz, & Smyer, 2012; Karlin, Duffy, & Gleaves, 2008). Reasons for this may include: older adults being less likely to perceive the need for psychological health care (though this trend is changing as the baby boomer cohort reaches 65) and being more likely to seek care from a General Practitioner; and an unawareness of psychological health services (McIntosh, 1995). The public mental health system is under resourced and poorly managed, such that there is a lack of funds for older people to access private psychological services (Beel, Gringart, & Edwards, 2008) and often there are too few psychological health specialists adequately trained to work with older adults. Ageist attitudes remain despite a body of evidence that suggests older people can benefit from psychological therapy (Karel et al., 2012; Koder & Helmes, 2008). A broad approach needs to be taken to address the incidence of poorer well-being post-driving cessation. Further research into the impacts of driving cessation on well-being and the needs of ex-drivers is required to inform targeted interventions. Interventions need to adopt a two pronged approach: prevention and treatment of psychological distress. Policy makers should consider psychological health services a priority and ensure the public's need for these services is sufficiently met. Public awareness of psychological health services should be raised, and a greater emphasis on training psychological health specialists to work with older adults is needed.

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APPENDICES

Appendices

Appendix A: Focus Group Discussion Transcript

0.00 – 1:29 Facilitator: *So I'd just like to open the discussion today for each of you to talk a little bit about when you gave up driving and what it was like, what you remember it being like just after you gave up driving if you can remember what it was like.*

[Phil] There is another question as well; you didn't ask why did you give up driving?

Facilitator: *OK, that, that's something I'm going to ask at a later date (yup)...*

[Phil]: Oh

Facilitator: *...but that is a very good question. So, who can I invite, who would like to start first? Go on May.*

[May] Well I'm in a different situation in that I have somebody who does the driving for me but then that puts the onus on that other person, not to be at my beck and call, but then if I want to go somewhere I have to consider it and think: can I do two or three things at once so that I don't have to ask to be taken somewhere else. I try not to....I try to do things so that we do them together.

Facilitator: *Has anyone else experienced that?*

1:30 – 3:41 [Jane] Oh, well I had a car you know I had a car accident and my daughter said 'mum you shouldn't drive a car any more you're 80' well 82, 81

[May] Age has got nothing to do with it.

[Jane] Oh I think so.

[May] No.

[Phil] Well now she wants to tell when she stopped driving. That was that time that's two years ago.

Facilitator: *So it was two years ago?*

[Jane] Two and a half years ago.

Facilitator: *What was it like for you after you gave up?*

[Jane] Horrible.

Facilitator: *Horrible?*

[Jane] Horrible! You have to go to the doctors with the buses, you have to go somewhere else with the buses

[Mel] And everybody knew it was horrible too.

[Jane] Oh it's shocking.

Facilitator: *What was it that was horrible about that?*

[Jane] 'Cause I missed my car,

Facilitator: *Yea?*

[Jane] You know you're not... My daughter lives in Sutton so I haven't got a car. And, and the buses, I don't know if they go there

[Phil] She can't (the daughter) can't help us in short.

Facilitator: *So your daughter lives a long way away?*

[Jane] Yup, she will come, like at the moment I'm under the doctors, especially

for the doctors, she will take me there. But otherwise, you know. I don't even come there anymore now. She hasn't got much time anymore and her husband is not too well either, and, and he's got cancer.

Facilitator: *So you said it's horrible and you have to get the buses.*

[Jane] Yea!

Facilitator: *What is it about getting the buses that is horrible?*

[Jane] When it's windy and raining and cold I think I wish I had my car.

Facilitator: A*h, yes!*

[Phil] And another thing is the doctor is too far away from the bus stop, not too far but far.

[Jane] We have to walk about five, six blocks up you know it's…

Facilitator: *And I get from that that you find that a problem! That the doctor's surgery is further away!*

[Jane] It's not in direct a problem except when it's cold, raining and all that, I think why didn't I keep the car, but my car was a write-off. So she (daughter) said 'no no other car mum.'

3:42 – 4:20 Facilitator: *Do others experience that. Does anyone else use public transport to get about? No?*

[May] Actually I did, I got on the bus a couple of times.

Facilitator: *And what was that like?*

[May] It's great. You don't have to think where to park, you don't have to think where you're going, you don't have to worry about the traffic, you just sit on the bus and you take it.

[Jane] That is what I said to P the other day 'it's easy to look around now.' Because I was the driver see, and you see things now that before you didn't look at, where you have to drive.

4:21- 5:44 [Phil] Another thing is for her she has trouble walking.

Facilitator: *Ah yea, trouble walking? A little?*

[Jane] A little bit, not much. I've got a scooter, he bought the scooter but it's in the garage I don't want it yet. I can still walk. Why should I take that scooter?

Facilitator: *You have a scooter don't you?* [To Mel]

[Mel] Yea, well I was diagnosed with macular degeneration in 2004, no 2006 and I couldn't see properly at all at that time, my right eye had gone and so I didn't drive for about three months. I was told that I would compensate. So I started thinking about what would happen when I couldn't drive at all and its two and a half, three years I had to give it up. But what really bothered me was that I'd just been to my doctor and had the eye test which is reading which I passed with flying colours but I had lost the sense of depth and distance and I decided myself that was no good and I gave it up and I think something should be done about these tests and things.

5:45 – 6:25 Facilitator: *So you decided to give it up, what did you notice after you'd given up driving? How did your life change?*

[Mel] Well, you depend on other people a lot. We're fortunate here as we're got fairly good services, we have a taxi voucher service and the community transport is very good but you have to have at least two or three chronic diseases before you qualify for those. Well I'm an old crock so I qualified for them [laughs]. But, it does take your independence away which is of course you know, a big thing.

6:26 – Facilitator: *What is it about losing your independence? Like, I'd like to understand*

8:09 *what you mean by independence? Like what does it mean to you to have...*

[Mel] Well you can jump into your car anytime you like, really.

[May] You can come and go as you please.

[Mel] Yes [all agreed]

[May] But I think we rate independence too highly.

Facilitator: *Do you May?*

[May] Yes!

[Mel] Perhaps we do!

[May] Yes.

[Jane] What did you say?

[May] I said we rate independence too highly, we have to be independent and it's not necessarily so.

[Jane] That's why I said I'm not going on the scooter yet, I can walk, as long as I can walk I'll walk.

[May] You don't lose your freedom by losing some of your independence.

[Mel] No.

[Bea] In my case it was really sudden because I had to have knee surgery and I had a stroke and I lost....

Facilitator: *So there was no planning you could do?*

[Bea]... yes, it was quite some time ago.

Facilitator: *And what was your experience of that?*

[Bea] Well, because I was in hospital I was told a lot of the services that, the bus and ah, the, ah, community care car that could take you there, for a special appointment. But that's all very useful, but my husband died going on about still, going on about three years ago and I was very dependent on him now I have to depend on the availability of my sons.

8:10 – 9:21 [Bea] Usually one or the other can take me shopping but that's only in the day time there's a lot of things I'd like to go to, at night-time.

Facilitator: *Can you tell me about some of those?*

[Bea] Yea, well I feel as if I'd like to keep in touch more with the people I knew before. Some were still working and they were only available at night time. Different activities, you know, like even for instance the over 55 club at Tuggeranong, you know. I'm only able to go to more sedentary types of activities and because of that they had a booked group there and I'm enjoying and a lot of the social activities associated with that are at night-time too. I'm not talking about ballroom dancing or anything like that [laughs].

[May] Why not Bea?

9:22 – 12:21 Facilitator: *Has anyone else found that their level of activity they engage in has changed as a result of giving up driving?*

[Phil] Of course.

[May] No.

Facilitator: OK, *so we have a yes and a no!*

[Phil] You still have a car [to May].

[May] No.

[Phil] No but your husband's got a car.

[May] No, that doesn't make any difference to what I do.

Facilitator: *OK, well, we'll talk about each individual experience shall we?*

[Phil] When we want to go to a show or want to go [indistinct] we can't go.

[Jane] Seniors?

Facilitator: *Because?*

[Phil] No, we go there and they bring us home…

[Jane] Sometimes.

[Phil] Yea sometimes,… we can't go there anymore because it is too far away. We know a lot of people and they go to senior meetings.

Facilitator: *Yes.*

[Phil] There's one in Tuggeranong near the lake, yea? They are going nearly every day. We go only once a week…

[Jane] And what about Mondays?

[Phil] Yea and a fortnight…

[Jane] Mondays and Wednesdays…

[Phil] And we come back by taxi.

Facilitator: *So some people go every day and you only get to go once or twice*

[Phil] Yea.

Facilitator: *Does that change the relationship you have with those people there or does it not matter.*

[Phil] No, those people we see them and they tell us and we go and we see them.

Facilitator: *OK, so there's some activities there that I've heard that you no longer do because you don't have a car.*

[Phil] OK, yea!

Facilitator: *Now [May] you said that actually you haven't noticed a decrease in activities. Have you noticed an increase or has it stayed the same or …*

[May] it's the same.

Facilitator: *Do you do the same sort of things, or do you do just different things?*

[May] Both. Some are different and some are the same.

Facilitator: *Could you tell me a bit about that?*

[May] Well, we go, we go throw things in the car and go for a picnic; we still do that we always do that, and we go walking. We're always walking and we go round visiting people all around the place. I come down here [meeting/activity room] too often [laughs]…

Facilitator: *Too often?*

[May] Sometimes it feels like that. [Husband] and I have always done things together and always done things separately. So we still do them. Usually things involving the church there's somebody round from church who'll pick me up if I want to be picked up and that doesn't make any difference.

12:28 – 14:22 Facilitator: *Now, with yourself [Bea], you were saying that you stopped suddenly and also that your health changed at the time you gave up driving. Is there any way for you to know, 'cause obviously your life changed quite dramatically. Is there any way to know how much of that was due to giving up driving and how much of that was due to your health change or is there no way to tell the difference?*

[Bea] I think that's it. Too closely associated, I don't have any useful vision about that sort of thing apart from physical restraints and not being involved with

Ballroom dancing and bushwalking and whatever.

Facilitator: *Yea?*

[Bea] But I've got a plug-in scooter which I can use during day-light hours and down here [in the ILU area] at night and in the evenings. I certainly appreciate the activities here. And I must admit I'm very fortunate because we moved here, because of my disability quite some time ago, but my husband got sick and he died but I didn't have the hassle of selling up the house and moving here. Between, both my sons are [here] so it's fairly handy really. I can take my scooter to quite a wide range of places

[May] [laughs] She amazes us where she goes.

[Bea] I haven't tackled Woden yet [laughs] I'd have to start at breakfast time to get there by diner time [more laughter]. I don't know if I'd have to get there, charge it up and come home again…

[Mel] She's intrepid on her scooter.

14:23 – 15:28 [Bea] I don't want to go out at night time, only in the environment here.

Facilitator: *Sure.*

[May] But I think we live in a different environment here 'cause, you look at the calendar, our program and there's something that you could do every day just by coming down to this centre. So, you can go for a bus trip or there's different church services there are activities, you don't have to go out of the village. There's films Sundays and Wednesdays, well not every Sunday but…

[Jane] And shuffleboard.

[May] And shuffleboard, and there's bowls and people who come to music so that actually you don't *have* to go out of the village to have a social life.

Facilitator: *That's a very good point. So for you as individuals living here, giving up driving probably hasn't had as big an impact on your social life and your activities as people who don't live in this sort of environment? That's a very interesting point.*

15:29 – 20:01 [Bea] The main thing I think I might have missed more that anything is not being able to drive independently to Melbourne for instance to visit my daughter down there.

Facilitator: *To do those further trips?*

[May] I wouldn't drive that far anyway.

[Bea] I've lost touch with grandchildren so much. And, ah, because there's family in Melbourne, with four children, the youngest is in year 12, so they've certainly grown up. The local ones are younger, but I feel as if I don't know them as well.

Facilitator: *Because you can't just drop in?*

[Bea] No! They're involved in things after school. The kids have a marvellous social life these days. They're always at sleepovers or parties or whatever at weekends, or going to sports or whatever. Which I can go as a spectator, occasionally.

[Mel] But you have to be realistic. Even if you'd had a car you wouldn't drop everything and drive to Melbourne. Just out of the blue. It's a long way.

[Bea] But I used to drive there every three months while I was working.

[May] And also your grandchildren grow further away from you. All our grandchildren live in Canberra, but we don't see them, not very often. They're too busy.

[Bea] My local grandchildren have only, you know, they're younger, but all my

grandchildren really have only remembered me as disabled.

Facilitator: *So the question that comes to my mind then is, if you had your car still and you were still driving, what difference do you think it would make to the relationship you have with your grandchildren and your other relatives?*

[May] Absolutely none.

Facilitator: *Absolutely none! Could you expand on that? Why not?*

[May] Every one of my relations live in Canberra, except my brother who lives in Sydney, and I would never go to Sydney no matter what.

Facilitator: *So for you it makes no difference!*

[May] No difference!

Facilitator: *So how do you keep in touch with them, mainly?*

[May] Phone.

Facilitator: *So it wouldn't matter if you had a car or not you'd still phone. What about anyone else?*

[May] I'm too busy to go and see them.

[Mel] I'm like May. I haven't any extended family. I just have a daughter and a son. A daughter in Melbourne who I visit twice a year and I go by plane. And a son who lives here but his children are all grown up and having a car wouldn't make any difference to that relationship at all.

Facilitator: *[Phil] how about yourself? Any family? And would having a car make a difference?*

[Phil] Well, I didn't drive, [Jane] drove.

Facilitator: *Okay*

[Phil] But it makes a lot of difference for her [Jane] but not for me. My children live in the Netherlands. I have a computer so I can contact them every day if I want to.

Facilitator: *So having a car wouldn't make any difference?*

[Phil] No, not for me.

[Jane] Yea, but you said the other day when we were waiting, that it would be nice if we had the car again.

Facilitator: [To Jane] *Yes, but if you were still driving, would it change the relationship you have with your family in anyway?*

[Jane] Not really

[Phil] Yea a lot. You [to Jane] can't go to X, you can't go to Y

Facilitator: *But that's a different matter, just because you can go and see them without a car.*

[Phil] Oh, no, it's alright.

[Jane] Yea, they're all right.

Facilitator: *Yes?*

[Jane] At home I make cards; birthday cards and Christmas cards and we play shuffle boards.

Facilitator: *So you keep in touch in other methods?*

[Jane] Yes, and I ring my daughter and she rings me. She's got a busy life too.

Facilitator: *Do you think if you had a car, do you think that you would see your daughter more often? Or do you think it would make no difference?*

[Jane] It wouldn't make much of a difference. But I would go to my daughter

with the car and my son, he lives in Canberra.

20:02 – 24:18 Facilitator: *The next question I've got is quite a tricky question, 'cause we all have an image of our self and who we are and what we do and our values. Do you think giving up driving changed the way you view yourself and how competent you are? Beyond driving. Do you think giving up driving changed that at all?*

[Jane] No not really

[May] I don't think so, no.

[Bea] No because it was sudden and.

Facilitator: [to Bea] *You had a lot else going on didn't you!*

[Bea] Yes, I was working, and my social contacts locally would be through work. So it's definitely a change of lifestyle.

Facilitator: *Absolutely. And what was that like for you? Did your mood change?*

[Bea] I just had to pursue other things, I just substituted other activities.

Facilitator: *You chose other activities! Okay, what did you substitute, what other things did you do?*

[Bea] Well, again because, obviously because I was a registered nurse and I was working and a lot of the people I knew were at the hospital where I ended up as a patient. I was operated on in Sydney but I asked for rehabilitation here because I knew it would make a lot of difference to my husband, you know. Because we had our own business and four hours to Sydney, you know, twice a week or whatever and keeping a business on track. There's a lot of different between four hours and four minutes, it makes a big difference.

Facilitator: *A big difference!*

[Bea] At the same time, it was bit unfortunately because at the time they were making three hospitals into two, closing down the Royal Canberra and people going here and going there, and people were losing their jobs, leaving in disgust and going interstate. And when I turned up as a patient, 'ah we thought you'd gone to Calvary', you know! It was all happening, all happening at the same time, you know!

Facilitator: *Yes...., so what about you [May]? Do you think you saw yourself as a different sort of person or not when you gave up driving?*

[May] I gave it up [driving] because I sort of lost confidence in my driving and I don't know whether that effected my confidence in other things. I don't think so.

Facilitator: *You don't think so? So it was just that one area of your life you lost confidence in?*

[May] Yes, yes.

[Jane] That's what me daughter said, she said 'Mum you'll lose your confidence', she says 'don't drive anymore.'

Facilitator: *So when you gave up driving, did it affect how you felt about yourself?*

[Jane] A little bit. Not much.

Facilitator: *In what way?*

[Jane] We also did things, so...

Facilitator: *Yea, so what did you think, when you were no longer driving. Did you think that something inside you had changed, did you lose any...?*

[Jane] No.

Facilitator: *So you still felt as competent in life?*

[Jane] You have to. Life goes on so. Just take the car, taxi sorry, or the bus.

Facilitator: *So, Mel, what about you?*

[Mel] It didn't make any difference at all!

Facilitator: *No?*

[Mel] No!

Facilitator: *You still felt you were the same person? Still able to do the other stuff?*

[Mel] Absolutely.

24:19 – 29: 15 Facilitator: *What about mood? Did anyone experience sadness or? When we lose something we grieve that loss. Did anyone experience a period of time after they gave up driving when they felt sad about it?*

[Mel] Not any length of time but occasionally I'd think 'oh', you know.

Facilitator: *So even now?*

[Mel] No, no!

Facilitator: *So just then? And what was that like? Can you remember what that was like?*

[Mel] Oh, it was so temporary 'cause I'm pretty pragmatic sort of person. I accept life as it comes.

Facilitator: *But during those temporary times, are you able to describe what that was like?*

[Mel] It was infuriating for a few minutes.

Facilitator: *Ah, so it was frustrating?*

[Mel] Yes, yes.

Facilitator: *Frustration more than sadness?*

[Mel] Yes.

[Jane] I lost a son, he was only three and a half, in South Africa, we used to live there for ten years. He was only three and a half, he had polio. And that sometimes that is a bit hard.

Facilitator: *Yea! That would be very very hard.*

[Jane] But I got a son back, and another son, so.

Facilitator: *Yea..., so Phil did you ever drive? Did you ever drive a car, and when you stopped driving what was that like for you?*

[Phil] Just I stopped driving, that's it!

Facilitator: *You didn't feel sad?*

[Phil] No! Jane drove.

Facilitator: *Ah, so it didn't matter to you!*

[Phil] No! She was safer on the road than I was.

Facilitator: *So was it a bit of a relief maybe? To give up driving?*

[Phil] It was just me. It wasn't a relief, it happened. It matters what happens today, not yesterday or the day before and when I stopped driving [Jane] drived. I stopped smoking, well that's it! But about mood; when it is bad weather and I have to wait for the bus too long then I might get cranky but that is mood by the day. I'm very easy-going. Maybe too easy.

Facilitator: *And [May], how about yourself? Did it affect your mood after you gave up driving?*

[May] No, I only drove because I had to. People loved to get in the car drive..., no no. Car gets me from A to B.

Facilitator: *It was a necessity!*

[May] Yes, that's all!

Facilitator: *So was it a bit of a relief when you gave up?*

[May] Yes, I suppose it was. I didn't have to think 'where am I going to find a park?' [laughs]. Parking's a jolly hassle.

Facilitator: *What about parking was a hassle? What did you not like?*

[May] To think 'where on earth do I park?' Have you been to the hospital lately? You don't go to visit anyone because you can't find a park.

Facilitator: *So actually finding the park was the difficult bit, not the parking the car?*

[May] No no, it was just 'where do I park this time?'

[Jane] I was fortunate in 1990, I lost my husband, just died on the side of the road. He was 62. Then I went to the Netherlands for two years. Then I met Phil. And Phil, I was engaged to him when we were young. And I wanted to get married and he said 'I can't afford it' so 'bye bye!' Now I got him!

[Laugher]

[Jane] He kept ringing my sister, 'where is Jane?', 'oh she's in Africa!', then 'where is she?' 'Oh she's in Australia'. And he used to live in?

[Phil] Adelaide!

[Jane] Adelaide, and his wife got homesick or something and they went back and she passed away and my sister said go and meet him, because you know, I still missed my husband still.

Facilitator: *Sure, that's lovely story, but I'm afraid I'll have to bring you back on track. So when you gave up driving, was it a bit of a relief at all?*

[Jane] Not really, I was cranky, very moody, but still you get over it. It's so very long ago now [2.5 years]..., get the bus and the taxis.

29:16 – 31:00 Facilitator: *Because I'd like to move now to talk to some of the benefits of giving up driving. Did anyone experience any benefits?*

[Phil] Oh yes, it is cheaper without the car.

Facilitator: *Cheaper without a car!*

[Jane] Registration, tyres and all that, it is cheaper.

[May] What do you spend your money on instead?

[Phil] We save it

[Jane] We do things go on holidays, if we wanted to.

[May] There you are, that's a benefit!

Facilitator: *So you save money* [To Jane and Phil]. *You don't have to park anymore* [to May]. *And you were going to say something?* [to Bea]

[Bea] You've only just got the scooter, so you don't know how much the power's going to cost do you? There is a financial advantage. [Mumbles]

Facilitator: *So Mel did anything good come out of giving up driving?*

[Mel] I suppose the financial aspect, but I haven't thought about it in those terms.

Facilitator: *No no. Was there? Did you notice anything good out of giving up driving?*

[Mel] I don't think so actually except the costs of the car. I can't think of any.

31.01 – 36:47 Facilitator: *I've heard, as we've been talking that there are certain ways that you cope with not having a car. So say, for example, you* [to Phil] *just treat each day*

as it comes and you don't worry about the past. So that's one way of dealing with the negative side of not having a car. Anyone have any other coping strategies that they've used?

[Jane] Not really.

[May] Changing your medico. So you just get on the bus and in four minutes you're down and in Erindale and at the doctors.

Facilitator: *Ah so you changed doctors, to one that is closer to you!*

[May] Yes.

[Jane] Ah so you're in Erindale now?

[May] Yes.

[Jane] Well I'm in Tuggeranong Square.

[May] Well that's just as easy, to get on the bus and you're down there in six minutes. Four minutes to Erindale and when I've been speaking to people over in the new section and they don't have a car, that's the question I've been asking them; 'where's your doctor?' 'Ainslie!' And I've said I think it might be a good idea if you thought about getting one a bit closer.

Facilitator: *So you just....that's a really good coping strategy, you got a doctor that was closer to you!*

[Jane] But I've got such a good doctor I couldn't [change].

[Phil] That's why we don't want to change. But Erindale is much closer.

[May] And there's always somebody there.

Facilitator: *So there are other benefits, there are knock on benefits?*

[May] Yes.

Facilitator: *What other thinks have you done to cope with not having a car?*

[Mel] It's taught me patience. [Laughs]

Facilitator: *That's an interesting one.*

[Mel] Because you see if you use the community transport they tell you to be ready an hour before the appointment. And sometimes they pick you up an hour before and you have to wait the other end. I always take my library book with me now.

Facilitator: *Ah, so you've done some planning there. You've thought 'okay, maybe I've got an hour to wait, I'll take a book with me!'*

[May] I was quoting Mel to somebody yesterday about Mel always taking their library book with them.

[Phil] I always take a book with me.

Facilitator: *In case you have to wait somewhere?*

[Phil] Not here.

Facilitator: *And you said that it had taught you patience!*

[Mel] Sitting down and waiting.

Facilitator: *Just having to do that time and time again!*

[Mel] Yes.

Facilitator: *You thought, at some point, that 'I'm not going to get annoyed about this!'*

[Mel] That's right, because of the service I get, as a result.

Facilitator: *So that to me sounds as if there was some acceptance involved? You just accepted the situation.*

[Mel] Well you have to don't you.

Facilitator: *Well, it's interesting that you say that because some people don't!*

[Mel] Well it depends on yourself doesn't it! I mean you have to take each part of your life as it comes.

[May] You have to accept those things that you can't change.

[Mel] That's right. I mean you grow.

Facilitator: *So is there any part of giving up driving that you haven't been able to accept? That you still struggle with and get cross with?*

[Mel] No, not at all!

[Bea] My [mumbles] with the social life, as far as the out of daylight hours mainly.

Facilitator: *I've heard you struggle with that yes! So how do you deal with that? Because it sounds like that is not only going to make you feel frustrated, but a little bit sad that you can't do those things.*

[Bea] Uhm. Well, I've had to amuse myself for so long, I've been only my own for so long, in the daytime anyway. My husband's working when I was initially sick and it's been more gradual in that respect I suppose.

Facilitator: *So you found ways to be comfortable with your own company, by the sounds of things. But on the occasions when you are a little bit sad or frustrated because you can't go out in the evening and do those social things. How do you cope with that? Is there anything you do if you experience that?*

[Bea] Not really,... I just had to switch off from those sorts of things now.

[May] Have a drink of whiskey [Laughs].

Facilitator: *So you try to just switch off?*

[Bea] Well I've had to adjust to so many things. It didn't affect the social life as much as it could have done. When I was working full time I was doing a few things that occasionally at night time, going out for dinner occasionally, or having people in. I could still do that, with company. But I can't now. Because I haven't got transport. I do go out with my sons, usually and my daughter sometimes at night-time too.

36:48 [Phil] I'm thinking what you are telling now. I don't mind sitting at home reading a book or puzzling or go on the computer but Jane is somebody, she likes to meet people. Now she can't.

Facilitator: [To Jane] *Do you find that that is quite hard?*

[Jane] Yes, I miss how I go to my daughter or go to my friends, a couple of my friends they passed away and so there's not many left. I mean, I'm from Holland, I reckon and when I want to ring them they go on my sister's in law, everything. I miss that a lot.

Facilitator: *When you miss that, can you describe how you feel inside when you're missing...*

[Jane] Empty!

Facilitator: *You feel empty,... empty in any particular part of the body, or?...*

[Jane] Well at the moment I'm at the Doctor's 'cause I'm keep getting nauseous, and they don't know what it is yet.

Facilitator: *Oh, but when you're missing that social interaction, and you feel empty, how do you cope with that? Is there anything you do?*

[Jane] Well, usually, if I start with my cards it's okay.

[Phil] When she's doing things at home.

[Jane] Things at home and my tapestry.

Facilitator: *Ah, so you've got quite a few hobbies....*

[Jane] Yea, yea, I've got quite a few tapestries done.

Facilitator: *And how does that work to make you feel better do you think?*

[Jane] I don't think about it then do you? 'Cause you do things and you have to think making the cards.

Facilitator: *Does anyone else do that? To keep busy, to stop thinking about things?*

[May] I'm just busy.

[Phil] You're busy all the time.

[May] But it's not to stop thinking about things; it's just busy, doing things.

Facilitator: *Okay, what purpose does being busy serve for you?*

[May] I never thought about it. I just do things.

[Mel] All the time too.

Facilitator: *And how do you choose what to do?*

[May] I have to decide which one I will do. Sit down and read a book,...

[Mel] She does a lot of sewing.

[May] Sew...

Facilitator: *So is it the case that you just have a lot of interests and you always have?*

[May] Yes.

Facilitator: *So that hasn't changed as a result of giving up driving, it's always been the same.*

[May] Probably I do more.

Facilitator: *You do more now?*

[May] Probably.

Facilitator: *Probably? Why do you think that might be?*

[May] Well, I'm at home more.

Facilitator: *Does anyone else find that they are at home a lot more now that they've given up driving?*

[All] Yes!

Facilitator: *And what's that like, to be home more?*

[Mel] Well I enjoy it. I enjoy it.

Facilitator: *What is it that you enjoy about that?*

[Mel] I quite enjoy being on my own and ...I listen to music...sometimes play the piano as well, it's a big part of my life actually.

[May] Mel and I have that in common, I don't have to depend on other people where as other people need to have other people around them. I don't.

[Mel] And I use the computer a lot I have a lot of friends with whom I correspond.

Facilitator: *How do you keep in touch with people?* [to Bea]

[Bea] Less [laughs] by I phone mostly.

Facilitator: *By phone mostly!*

[Bea] I do have a computer, but it mostly sits idle really. I've got the internet but....

Facilitator: *And is keeping in contact by telephone, is that satisfactory, or what's that like?*

[Bea] Yes, I can hear. I've got a son in Singapore and daughter-in-law at the moment is in the NT.

Facilitator: *So even if you had a car, you'd use the phone anyway to keep in touch.*

[Bea] Ye, yes, with those anyway. But likely with my local daughter and my daughters in Melbourne. But if I write a letter I use the computer as a word processor, mostly

41:37.6 - 45:16.8 Facilitator: [*Summary]: Well, we've actually talked a lot about quite a lot of issues here, one way or another. We've talked about: the relationships with other people; other forms of transport that you may use and why it's problematic and we've seen that giving up driving there're some, some benefits. And that for the most of you I'm getting the feeling that the actually giving up driving has had some impacts but it hasn't really changed you as people. You're still the same people, even though you don't have your car anymore. Would that be right?*

[All] Yes!

[Mel] So it should be!

Facilitator: *Is there anything we haven't talked about with regards to giving up driving that you think is an important point. Something that you want me to know?*

[Mel] I find the most important thing is not being able to go shopping unless I rely on somebody to take me.

Facilitator: *What kind of shopping is that?*

[Mel] Grocery shopping.

Facilitator: *So just day to day basic?*

[Mel] Yup.

Facilitator: *So you need someone else to take you?*

[Mel] Hmm.

Facilitator: *And how do you cope with that? Not being able to just nip out and get what you want.*

[Mel] Well, again, I have to, so I do.

Facilitator: *Yea, but I'd like to know what you do. What is it that you do when you can't just nip out?*

[Mel] We go on a certain day which suits Joan, you've met Joan and actually that day doesn't suit me at all. But that's the only day she can go so that's fine. You have to make compromises.

Facilitator: *Right, compromises.*

[Mel] We haven't mentioned that but I think you have to make compromises.

Facilitator: *Yea? That's a really good point. What compromises have we made?*

[May] Well, for instance, if I go to Spotlight...

[Mel] in Queanbeyan.

[May] ...Yes, in Queanbeyan, it's not the getting there it's when I get there...

[Mel] Oh, [May's husband] won't wait the time that you want to browse and...

[May] That's right. I can't browse the way I would if [husband] wasn't there. So I have a list of what I need to get and I get it I don't sort of think oh I might go down there. He's pretty, he's very patient.

[Jane] That's right, you write lots of lists.

Facilitator: *You write lots of lists!*

[May] Oh yes, yes

[Mel] I always shop by lists. I feel I shouldn't take Joan's, more time than I really need and she always says 'you don't have to hurry like that' but I feel I impose on people when I take a ride from them you see so I'm as quick as I can with my business.

[May] I always have a list.

[Mel] Yes, I do to.

[Jane] I do too.

Facilitator: *So, I'm hearing that you feel a little time poor. Like you feel like you've got to rush. I've heard that you* [to Mel] *don't want to keep Joan... because you don't want to impose on her...*

[Mel] That's right!

Facilitator: *Even though she says that 'don't rush, it's okay.'... But there' something there that you think you're imposing.*

[Mel] Yes, I suppose, I haven't thought of it that way. Of time poor!

Facilitator: *And for you May it's the same.*

[Mel] It's the same.

[May] Yes, it's the same for me. [Husband] doesn't mind the time but I feel dragging him round the shop he doesn't really enjoys.

45:16.7 - 46:55.2 [Phil] When you don't have a car and you have to go to the doctors you must make your appointment to suit with the bus.

Facilitator: *Ah so you have to plan as well.*

[Phil] You have to! And go to the doctor and come back with a car it takes you 15 or 20 minutes from home to home. Without a car at least one hour or one hour and a half and if you go by taxi and come back by taxi well it is a little bit less. But one hour and a half to see the doctor for five minutes.

Facilitator: *So with a car, things were much quicker for you?*

[Phil] Oh much quicker.

[May] But you've got the whole day!

Facilitator: *But it's still a very interesting point. So for you,* [To Mel and May] *you try and compress your jobs down and make them smaller and shorter, and for you Phil, you find that jobs that were shorter have got longer. So we've got two things happening.*

[Phil] Everything we do.

[Mel] That happens to me when I go to the doctor, I choose to go to the doctor by taxi; I can't go by bus anyway because she's in Isabella Plains. I order the taxi so it comes at the time I want it. But then at the other end, you see, I'll ask then to phone and sometimes you have to wait for half an hour before a cab comes. But then I have my book with me.

46:55.2 - 50:51.5 Facilitator: *Do you feel that the frequency with which you go to the Doctor has changed as a result of giving up driving?*

[Mel] No, not for me.

Facilitator: *No, so that's still the same? You still go to the Doctor the same number of times.*

[All] Yes.

Facilitator: *Okay. What about shopping, has the frequency of shopping changed?*

[Mel] Yes, yes.

[May] No.

Facilitator: *No, not for you?*

[May] No, we always shop once a week.

Facilitator: *That hasn't changed?*

[Mel] We're continental people, you see, and we don't shop once a week,... we shop very often.

Facilitator: *Is that the same for you [Bea] also?*

[Bea] I've always been shopping once a week.

Facilitator: *Ah, you've always gone once a week!*

[Mel] We used to shop every day for bread and things like that, don't we?

[Jane] And milk, fruit.

[Bea] There's an awful lot of difference in the type of shopping that they'll tolerate. They don't like to look through brakes and things like that [laughter], like buying things from catalogues.[all ladies agree]

[Jane] We've got the one with two wheels [shopping trolley] fill that up and there we go with taxi.

[Phil] Yeah we always come back by taxi when we do our weekly shopping.

[May] Do you?

[Phil] We have to.

[May] Where do you go?

[Phil] Go to Coles in Tuggeranong.

Facilitator: *And when you do go shopping. As a result of giving up driving, have you changed the kinds of things you buy when you go shopping?*

[Jane] Well, if it is milk and stuff, you go, like [Mel] you go into the little shop you know. It's a bit heavy and we usually have a thing full of groceries so.

[Bea] How did you manage when we didn't have a shop for a while?

[Jane] Which shop?

Facilitator: *When they didn't have a shop, how did you manage?*

[Jane] We weren't even here when we didn't have a shop?

[May] Oh yes you were.

[Jane] Really?

[May] Two years ago!

[Jane] Is it?

[May, Mel] Yes.

[Jane] We don't come there that often you see. In the little shop.

[Phil] There was another shop here before they came here!

[Mel] Yes, IGA

[Jane] Oh, yea that one. Yea, they went and then we got the other one.

[Mel] And we were for three months without a shop.

Facilitator: *And do you think that without a car that made a bigger difference? Not having that shop there? If you'd had a car it seems like it wouldn't have made a*

difference whether there was a shop there or not.

[Phil] Well, if you go to *this* shop, you pay a lot more…

[Mel] Not for everything.

Facilitator: *Okay, but for some things?*

[Phil] Yes

Facilitator: *So not having a car and having to go to that shop for milk meant that you had to pay more for some things?*

[Phil] Not for milk. Milk and bread.

[May] Actually, even milk is more expensive.

[Phil] More?

[May] Barely

Facilitator: *Any other compromises you've had to make?*

[Bea] Using your scooter, people get out of the way more [Laughter]. I've even taken my scooter to the theatre. During the daytime it's not terribly busy and they say 'Okay, not a problem'. It makes a difference to where you sit.

[Jane] You take your scooter into the shop too, don't you!

[Bea] Yea I do!

[Jane] Tuggeranong?

[Bea] Yes.

50:51.4 - 52:25.0 Facilitator: *I think we'll wind up now, but before we wind up I'd just like you to take a little moment to think about the message you'd like to leave me with. A sentence or two, what do you think is the most important thing for people to know about what it is like to have given up driving. So just take a minute to think and then when you're ready just let me know what is the most important thing people should know about what it is like, to have given up driving. And it will be completely personal to you.*

[May] I think it's an acceptance of the fact. You have to accept the fact that you can't do it any longer. And then you can alter what you do accordingly.

[Mel] I was going to say that sooner or later you have to give up driving and it's good to be prepared. This is what I found out and did myself. You see, I went into great detail about scooters and walkers and things so that when the time came I think I was fairly ready.

Facilitator: *Okay, so we've got acceptance, we've got preparation.*

52:24.9 - 54:59.0 [Jane] I just thought oh well we have to give up so we gave up the car and is all. I was just cranky that's all.

[May] That was a rude shock because you had an accident wasn't it. Which is different.

[Jane] Also, yes.

Facilitator: *So for you Jane, it sounds like, you were just aware that you were cranky, you knew why you were cranky and you just worked through it.*

[Jane] It's much better now, I mean we've done it now what, two and a half years.

[Phil] She still says, sometimes, 'I wished I still had my car'.

[Jane] Yes, sometimes. [General agreement that this was normal]. When it's rainy or windy and I want to visit my daughter. But everyone would have that, you know, wouldn't you say so? When it's rainy or cold.

Facilitator: *Phil how about you? One thing you'd like to leave in terms of what it*

is to give up driving.

[Phil] I would say that it is alright if you are fit enough to drive keep your car but as soon as you feel it's not safe anymore just give it up. Just give it up!

[Mel] Unfortunately, not everybody feels like that Phil. And we all know people in the village who shouldn't be driving.

[Phil] No. There is a lady in the village, she is now dead, she is, Joan, or Jean? She is 80, older, and I told her once, 'you must stop driving because her brakes wasn't working anymore. She was cranky with me, very cranky.

Facilitator: *I'll just have one more comment from you Bea 'cause I haven't had one from you.*

[Bea] You have to make a lot more effort to keep in touch with family and friends.

Facilitator: *Thank you so much for your participation. It is much appreciated.*

APPENDICES

Appendix B: Naïve Reading

(a) Individuals stop driving for many different reasons. Some individuals think age is relevant to the timing of giving up driving, others disagree. The level of involvement in the decision to give up driving varies. Abruptly stopping driving may mean there has been no choice in the matter. Little or no choice to stop driving isn't necessarily a barrier to adapting to the changes and/or accepting life without a car. Events that occur simultaneously with giving up driving (e.g., a sudden decline in physical health) may overshadow/lessen the attention paid to and/or the importance of giving up.

(b) Driving equates to feeling free and independent: being able to go anywhere at any time to do anything. There is no need to rely on others; participants felt free to make their own choices; and, had the ability to act spontaneously. Driving is experienced as comfortable, convenient, and time saving; but, some aspects of driving are stressful.

(c) Good experiences come from no longer driving, such as a sense of relief and less worry, but most experiences are perceived as not good. Getting about takes more preparation, is more difficult, is less convenient, takes longer and may be less comfortable than having and driving one's own car. Opportunities to interact in, and with, the world seem limited. Often it seems more difficult to access places, activities and people with the same regularity and sometimes they cannot be accessed at all. Mood may change; there may be regret, irritation, and/or sadness. While monetary savings are acknowledged some individuals do not immediately recognise these. There is a belief that the intensity and kind of impacts that occur are less strongly felt, and fewer changes are experienced, by those who live in retirement villages where services and transport are available.

(d) Individuals make lifestyle changes to adapt to life without a car. Participants expressed a tendency to reduce the number of places visited and/or replace the places they used to visit with places that are on a bus route and/or are closer. Likewise, they discussed a reduction in the number and/or kind of activities embarked upon. Activities tend to be given up when they are thought to be too much effort or if they are not necessary. Arrangements are made to avoid having to travel too far or too often. Other ways of getting about are adopted. Family members, friends or acquaintances may take those who no longer drive to places they want/or need to go.

The availability of a lift may be experienced as inconvenient and accepting a lift often elicits a sense of dependence and/or being a burden. Asking for a lift may be reserved for times of need and may be a last resort, rather than fulfilling a wish. Because there is a belief that accepting help places a burden on the person who provides the help there is also a belief that strategies should be adopted to minimise this perceived imposition. Psychological coping is evident in participants' acceptance of post-cessation circumstances and compromise. Compromise is used to avoid putting others out of their way, even when the person who is offering help says it is not necessary. When some activity is perceived as being too challenging or will place too much of an imposition on others, individuals seems to decide that the activity is not that important after-all and other activities may be seen as more important.

Appendix C: Thematic Structural Analysis Results

Text	CMU	Sub-theme	Theme	Main theme
you didn't ask why did you give up driving	Ask why give up	Creating a narrative	Reasons for Driving Cessation	PRE-DRIVING CESSATION
Well now she wants to tell when she stopped driving.	Wants to tell when she stopped driving			
Yea, well I was diagnosed with macular degeneration in 2004, no 2006 and	Developed macular degeneration			
but my husband died going on about still, going on about three years ago	Husband died			
Well I've had to adjust to so many things.	Multiple losses			
Just I stopped driving, that's it!	Simply stopped			
[May] That was a rude shock because you had an accident wasn't it. Which is different. [Jane] Also, yes.	Car accident was a rude shock			
It was just me. It wasn't a relief, it happened. ... and when I stopped driving [Jane] drived. I stopped smoking, well that's it!	Driving cessation a non-event			
That was that time that's two years ago.	Stopped 2 years ago			

Text	CMU	Sub-theme	Theme	Main theme
it's two and a half, three years I had to give it up.	Stopped nearly years ago	Creating a narrative cont...	Reasons for Driving Cessation cont...	PRE-DRIVING CESSATION cont...
... yes, it was quite some time ago.	Stopped some time ago			
But what really bothered me was that I'd just been to my doctor and had the eye test which is reading which I passed with flying colours but I had lost the sense of depth and distance and I decided myself that was no good and I gave it up and I think something should be done about these tests and things	Eyesight tests are not effective for assessing ability to see to drive safely			
it was sudden	Occurred suddenly			
I couldn't see properly at all at that time, my right eye had gone and so I didn't drive for about three months. I was told that I would compensate.	Deteriorating eyesight	Health decline		
In my case it was really sudden because I had to have knee surgery and I had a stroke and I lost....	Had a stroke			
I gave it up [driving] because I sort of lost confidence in my driving	Loss of confidence	Psychological		

Text	CMU	Sub-theme	Theme	Main theme
That's what me daughter said, she said 'Mum you'll lose your confidence',	Anticipated loss of confidence	Psychological cont...	Reasons for Driving Cessation cont...	PRE-DRIVING CESSATION cont...
you're 80' well 82, 81	Too old to drive	Ageing		
Age has got nothing to do with it	Age has nothing to do with giving up driving			
She was safer on the road than I was.	Other household driver safer	Safety		
I would say that it is alright if you are fit enough to drive keep your car but as soon as you feel it's not safe anymore just give it up. Just give it up!	Give up driving if it's not safe anymore			
Oh, well I had a car you know I had a car accident	Had a car accident	Loss of car		
but my car was a write-off.	Lost car in an accident			
and my daughter said 'mum you shouldn't drive a car any more	Daughter said not to drive	Others' influence		
So she (daughter) said 'no no other car mum'	Daughter said not to get another car			
she says 'don't drive anymore.'	Daughter said don't drive anymore			
Well you can jump into your car anytime you like, really.	Facilitated spontaneous travel	Spontaneity	Being the Driver	

Text	CMU	Sub-theme	Theme	Main theme
I only drove because I had to. People loved to get in the car drive..., no no. Car gets me from A to B.	Driving is a means to an end	Necessity	Being the Driver cont...	PRE-DRIVING CESSATION cont...
Parking's a jolly hassle.	Parking problematic	Hassle		
To think 'where on earth do I park?' Have you been to the hospital lately? You don't go to visit anyone because you can't find a park.	Finding a parking space is problematic			
You can come and go as you please.	Facilitated freedom to travel	Autonomy		
I started thinking about what would happen when I couldn't drive at all.	Thought about consequences of driving cessation	Thinking about cessation	Anticipating cessation	
I was going to say that sooner or later you have to give up driving and it's good to be prepared. This is what I found out and did myself. You see, I went into great detail about scooters and walkers and things so that when the time came I think I was fairly ready.	Driving cessation is inevitable so it is best to plan for it so you're ready			

Text	CMU	Sub-theme	Theme	Main theme
Well, you depend on other people a lot.	Depend on others	Loss of independence	Independence	IMPACTS OF DRIVING CESSATION
But, it does take your independence away which is of course you know, a big thing.	Loss of independence is a big thing			
I was very dependent on him now I have to depend on the availability of my sons.	Dependent on family			
The main thing I think I might have missed more that anything is not being able to drive independently to Melbourne	Loss of independent travel			
I find the most important thing is not being able to go [grocery] shopping unless I rely on somebody to take me.	Loss of independent shopping for essential items			
I don't sort of think oh I might go down there	*I don't think I might go there*			
We go on a certain day which suits Joan, you've met Joan and actually that day doesn't suit me at all.	Isn't able to choose which day to shop			
That's why I said I'm not going on the scooter yet, I can walk, as long as I can walk I'll walk.	Use of scooter signals loss of independence	The nature of independence		
But I think we rate independence too highly	Independence rated to highly			

Text	CMU	Sub-theme	Theme	Main theme
I said we rate independence too highly, we have to be independent and it's not necessarily so.	No need to rate independence so highly	The nature of independence cont...	Independence cont...	IMPACTS OF DRIVING CESSATION cont...
You don't lose your freedom by losing some of your.	Independence may be lost without loss of freedom			
My daughter lives in Sutton so I haven't got a car.	No transport means unable to visit her daughter	Social activities	Participation in Life	
Some were still working and they were only available at night time.	Lost touch with friends			
[Husband] and I have always done things together and always done things separately. So we still do them.	We still do the same things			
I've lost touch with grandchildren so much. And, ah, because there's family in Melbourne, with four children, the youngest is in year 12, so they've certainly grown up.	Lost touch with grandchildren who live far away			
Every one of my relations live in Canberra, except my brother who lives in Sydney, and I would never go to Sydney no matter what.	Would visit brother in Sydney no matter what			
I'm too busy to go and see them.	Too busy to visit family			
But it makes a lot of difference for her [J: his wife] but not for me.	Some affected more than others			

Text	CMU	Sub-theme	Theme	Main theme
[if she drove] But I would go to my daughter with the car and my son, he lives in Canberra.	Would visit family if still drove	Social activities cont...	Participation in Life cont...	IMPACTS OF DRIVING CESSATION cont...
there's a lot of things I'd like to go to, at night-time.	Desires night-time activities			
Of course ... When we want to go to a show or want to go [indistinct] we can't go.	Can't go to things he want to go to			
When I was working full time I was doing a few things that occasionally at night time, going out for dinner occasionally, or having people in. I could still do that, with company. But I can't now. Because I haven't got transport.	Unable to attend night-time activities			
we can't go there anymore because it is too far away.	Distance prohibits going			
but J is somebody, she likes to meet people. Now she can't.	Unable to meet people			
No. ... it's the same. Some [activities] are different and some are the same.	Some activities substituted	Changes in participation		
and we go round visiting people all around the place. I come down here [meeting/activity room] too often [laughs]... Sometimes it feels like that.	Remains active			

Text	CMU	Sub-theme	Theme	Main theme
I don't want to go out at night time, only in the environment here.	Doesn't want to travel too far at night-time	Changes in participation cont...	Participation in Life cont...	IMPACTS OF DRIVING CESSATION cont...
Probably I do more ... Well, I'm at home more.	Busier at home			
Yes, yes. [shop less often] *We're continental people, you see, and we don't shop once a week, ... we shop very often.*	Shops less often than she's like			
No [change], we always shop once a week.	No change in shopping habits			
I don't even come there anymore now.	Doesn't visit her daughter anymore			
Horrible Cause I missed my car	Driving cessation experiences are horrible when you miss your car	Discomfort	Emotional distress	
Horrible! You have to go to the doctors with the buses, you have to go somewhere else with the buses	Having to rely on buses			
And everybody knew it was horrible too	Others knew it was horrible			
Cause I missed my car	Misses her car	Regret		
When it's windy and raining and cold I think I wish I had my car.	Misses driving when the weather is inclement			

Text	CMU	Sub-theme	Theme	Main theme
Yea, well I feel as if I'd like to keep in touch more with the people I knew before.	Wished she'd kept in touch with friends	Regret cont...	Emotional distress cont...	IMPACTS OF DRIVING CESSATION cont...
[Jane] It's much better now, I mean we've done it now what, two and a half years. [Phil] She still says, sometimes, 'I wished I still had my car'.	Over time no longer driving isn't so bad but continues to miss her car			
Yes, sometimes. [General agreement that missing having a car is normal]. When it's rainy or windy and I want to visit my daughter. But everyone would have that, you know, wouldn't you say so? When it's rainy or cold.	Missing having a car is normal when the weather is bad			
It was infuriating for a few minutes.	Infuriating	Frustration		
Oh it's shocking.	Shocking			
My [mumbles] with the social life, as far as the out of daylight hours mainly.	Misses night-time social activities	Sadness		
Yes, I miss how I go to my daughter or go to my friends	Misses visiting family and friends			
[feels] Empty!	Feels lonely			
Not any length of time but occasionally I'd think 'oh', you know.	Sadness was brief			

Text	CMU	Sub-theme	Theme	Main theme
But about mood; when it is bad weather and I have to wait for the bus too long then I might get cranky but that is mood by the day.	Temporarily cranky	Irritability	Emotional distress cont...	IMPACTS OF DRIVING CESSATION cont...
I was cranky, very moody	Felt cranky			
I was just cranky that's all.				
And another thing is the doctor is too far away from the bus stop, not too far but far.	Getting to medical appointments is more difficult	Physical discomfort	Inconvenience	
We have to walk about five, six blocks up you know it's... It's not in direct a problem except when it's cold, raining and all that, I think why didn't I keep the car,	Walking is a problem in inclement weather			
Another thing is for her she has trouble walking.	Walking is a problem			
Because you see if you use the community transport they tell you to be ready an hour before the appointment. And sometimes they pick you up an hour before and you have to wait the other end.	You have to wait around when you use community transport	Waiting		
Sitting down and waiting.	Repeatedly having to sit and wait			

Text	CMU	Sub-theme	Theme	Main theme
I order the taxi so it comes at the time I want it. But then at the other end, you see, I'll ask then to phone and sometimes you have to wait for half an hour before a cab comes.	Waiting for taxis	Slower	Inconvenience cont...	IMPACTS OF DRIVING CESSATION cont...
And go to the doctor and come back with a car it takes you 15 or 20 minutes from home to home. Without a car at least one hour or one hour and a half and if you go by taxi and come back by taxi well it is a little bit less. But one hour and a half to see the doctor for five minutes.	Without a car it takes more than three times as long to visit the doctor			
Well, if you go to this shop, you pay a lot more...	Local shopping costs more			
You have to make a lot more effort to keep in touch with family and friends.	Takes more effort to keep in touch now			
That is what I said to P the other day 'it's easy to look around now.' Because I was the driver see, and you see things now that before you didn't look at, where you have to drive.	Sees more as a passenger than as a driver	Enjoyment	Positives	
Well I enjoy it. I enjoy it. [being at home more]	Enjoys having more time at home			

Text	CMU	Sub-theme	Theme	Main theme
Yes, I suppose it was [a relief]. I didn't have to think 'where am I going to find a park?' [laughs].	Don't have to think about parking	Relief	Positives cont...	IMPACTS OF DRIVING CESSATION cont...
Oh yes, it is cheaper without the car.	Saves money generally	Financial		
Registration, tyres and all that, it is cheaper.	Cheaper without car bills			
We save it	Save money			
We do things go on holidays, if we wanted to.	Option to spend savings elsewhere			
You've only just got the scooter, so you don't know how much the power's going to cost do you? There is a financial advantage. [Mumbles]	Running a scooter is cheaper than running a car			
I suppose the financial aspect, but I haven't thought about it in those terms.	Hasn't previously thought of the financial advantages			
It's taught me patience. [Laughs]	Learnt patience	Personal growth		
That's right. [through acceptance] I mean you grow.	Growth through acceptance			

Text	CMU	Sub-theme	Theme	Main theme
Well I'm in a different situation in that I have somebody who does the driving for me	Available driver makes a difference	Lifts	Alternative transportation	COPING
Well, we go, we go throw things in the car and go for a picnic; we still do that we always do that,	Husband drives			
Usually one or the other can take me shopping but that's only in the day time	Family provide lifts only during the day			
No, we go there and they bring us home...	Friends provide lifts			
Usually things involving the church there's somebody round from church who'll pick me up if I want to be picked up and that doesn't make any difference.	Church acquaintances provide lifts			
[Jane] drove.	Wife drove			
I do go out with my sons, usually and my daughter sometimes at night-time too.	Children drive			
It's great. You don't have to think where to park, you don't have to think where you're going, you don't have to worry about the traffic, you just sit on the bus and you take it.	Bus use more relaxing than driving	Public/community		

Text	CMU	Sub-theme	Theme	Main theme
Actually I did, I got on the bus a couple of times.	Bus travel	Public/community cont...	Alternative transportation cont...	COPING cont...
We're fortunate here as we're got fairly good services, we have a taxi voucher service and the community transport is very good but you have to have at least two or three chronic diseases before you qualify for those. Well I'm an old crock so I qualified for them [laughs].	Choice of services is good for those who experience chronic illness			
Well, because I was in hospital I was told a lot of the services that, the bus and ah, the, ah, community care car that could take you there, for a special appointment.	Transport for medical appointments			
And we come back by taxi.	Taxi use			
we always come back by taxi when we do our weekly shopping.	Taxi use for shopping			
Just take the car, taxi sorry, or the bus.	Taxi and bus use			
We've got the one with two wheels [shopping trolley] fill that up and there we go with taxi.	Uses a shopping trolley with a taxi			
I can take my scooter to quite a wide range of places	Electric scooter use is sufficient	Independent means		

Text	CMU	Sub-theme	Theme	Main theme
I've got a plug-in scooter which I can use during day-light hours and down here [in the ILU area] at night and in the evenings.	Uses an electric scooter	Independent means cont...	Alternative transportation cont...	COPING cont...
and we go walking. We're always walking	Walking			
Changing your medico. So you just get on the bus and in four minutes you're down and in Erindale and at the doctors.	Finding services that are easier to access using public transport	Swopping services	Minimising inconvenience	
can I do two or three things at once so that I don't have to ask to be taken somewhere else. I try not to....	Multi-task to minimise trip numbers	Planning		
but then if I want to go somewhere I have to consider it and think:	Thinks about travel			
So I have a list of what I need to get and I get it.	Makes and sticks to lists			
I always shop by lists. I feel I shouldn't take Joan's, more time than I really need	Uses a lift as a time saver			
When you don't have a car and you have to go to the doctors you must make your appointment to suit with the bus.	Times appointments with bus schedule			

Text	CMU	Sub-theme	Theme	Main theme
I'm as quick as I can with my business.	Feels like she has to rush	Hurrying	Minimising inconvenience cont...	COPING cont...
I just had to pursue other things,	Pursued other activities	Substituting alternative activities	Self-Adjustment	
I just substituted other activities.	Substituted activities			
I always take my library book with me now.	Takes a book to read			
I always take a book with me.	Takes a book			
At home I make cards; birthday cards and Christmas cards	Craft activities at home			
I don't mind sitting at home reading a book or puzzling or go on the computer	Entertaining self at home			
[keeps in touch with family by] Phone.	Phone use			
I ring my daughter and she rings me.				
Less [laughs] by I phone mostly.				
I use the computer a lot I have a lot of friends with whom I correspond.	Computer use			
But if I write a letter I use the computer as a word processor, mostly				
I've been only my own for so long, in the daytime anyway. My husband's working when I was initially sick and it's been more gradual in that respect	Gradual adjustment to social isolation	Slow change		
I've had to amuse myself for so long	Had to amuse herself over a long time			

Text	CMU	Sub-theme	Theme	Main theme
I just had to switch off from those sorts of things now.	Switches off	Distraction	Self-Adjustment cont...	COPING cont...
Well, usually, if I start with my cards it's okay.	Focuses attention on making cards to feel better			
I don't think about it then do you? 'Cause you do things and you have to think making the cards.	Makes cards to so as to not dwell			
You have to. Life goes on so.	Life goes on	Acceptance		
I accept life as it comes.	Accept what happens			
I'm very easy-going. Maybe too easy.	Tolerant			
It's so very long ago now [2.5 years]..., get the bus and the taxis.	Over time has accepted using other transport			
Well you have to [accept] don't you.	Acceptance is necessary			
I mean you have to take each part of your life as it comes.	Take things as they come			
You have to accept those things that you can't change.	Accept what you can't change			
I think it's an acceptance of the fact. You have to accept the fact that you can't do it any longer. And then you can alter what you do accordingly.	Accept you can't drive any longer, then you can alter what you do accordingly			

Text	CMU	Sub-theme	Theme	Main theme
I just thought oh well we have to give up so we gave up the car and is all.	Accept we have to give up	Acceptance cont...	Self-Adjustment cont...	COPING cont...
I have to so I do	Needs must			
But that's the only day she can go so that's fine. You have to make compromises.	You have to make compromises	Compromise		
We haven't mentioned that but I think you have to make compromises.				
I can't browse the way I would if [husband] wasn't there.	No longer browses			
Using your scooter, people get out of the way more [Laughter]. I've even taken my scooter to the theatre. During the daytime it's not terribly busy and they say 'Okay, not a problem'. It makes a difference to where you sit.	Sits in a different spot in the theatre			
I choose to go to the doctor by taxi	Made the choice herself			
It matters what happens today, not yesterday or the day before	Only the here and now is important	Present moment focus		
[Phil] You still have a car [to M]. *[May] No.* *[Phil] No but your husband's got a car.* *[May] No, that doesn't make any difference to what I do.*	Access to another driver may make a difference	Other driver	Co-benefits	

Text	CMU	Sub-theme	Theme	Main theme
I must admit I'm very fortunate because we moved here, because of my disability quite some time ago, but my husband got sick and he died but I didn't have the hassle of selling up the house and moving here. Between, both my sons are [here] so it's fairly handy really.	Moved to a retirement village because of her disability	Retirement village living	Co-benefits cont...	COPING cont...
But I think we live in a different environment here 'cause, you look at the calendar, our program and there's something that you could do every day just by coming down to this centre. So, you can go for a bus trip or there's different church services there are activities, you don't have to go out of the village. There's films Sundays and Wednesdays, well not every Sunday but... And shuffleboard, and there's bowls and people who come to music so that	Retirement village provides accessible social activities			
actually you don't have to go out of the village to have a social life.	Village provides a social life			

Text	CMU	Sub-theme	Theme	Main theme
but then that puts the onus on that other person, not to be at my beck and call	Taking lift places responsibility on the provider	Burden	Downside	COPING cont...
she always says 'you don't have to hurry like that' but I feel I impose on people when I take a ride from them you see	Providing a lift is an imposition			
but I feel dragging him round the shop he doesn't really enjoy.	Others don't enjoy shopping	Aversion		
There's an awful lot of difference in the type of shopping that they'll tolerate. They don't like to look through bras and things like that [laughter],	Others won't tolerate some types of shopping			
And, and the buses, I don't know if they go there	Lack of transport knowledge so unable to visit her daughter	Lack of knowledge	Limits	
She can't (the daughter) can't help us in short.	Daughter can't help out	Restrictions to family giving support		
Yup, she will come, like at the moment I'm under the doctors, especially for the doctors, she will take me there. But otherwise, you know.	The daughter will help with transport to medical appointments			
She hasn't got much time anymore and	Too busy to help			
her husband is not too well either, and, and he's got cancer	Son-in-law unwell so can't help			

Text	CMU	Sub-theme	Theme	Main theme
I think that's it. Too closely associated, I don't have any useful vision about that sort of thing apart from physical restraints and not being involved with Ballroom dancing and bushwalking and whatever.	Difficult to tell whether driving cessation per se or declining health leading to driving cessation affected participation in life	Concurrent losses, effect participation in life	Changes	NOT CESSATION PER SE.
The local ones are younger, but I feel as if I don't know them as well. Facilitator: *Because you can't just drop in?* *No! They're involved in things after school. The kids have a marvellous social life these days. They're always at sleepovers or parties or whatever at weekends, or going to sports or whatever. Which I can go as a spectator, occasionally.*	Losing touch with grandchildren because she spends less time with them because they are busy	Circumstances other than driving cessation effect relations with others		
your grandchildren grow further away from you. All our grandchildren live in Canberra, but we don't see them, not very often. They're too busy.	Losing touch with grandchildren because they are busy			
I was working, and my social contacts locally would be through work. So it's definitely a change of lifestyle.	Lost touch with friends when she stopped work			

Text	CMU	Sub-theme	Theme	Main theme
I haven't any extended family. I just have a daughter and a son. A daughter in Melbourne who I visit twice a year and I go by plane. And a son who lives here but his children are all grown up and having a car wouldn't make any difference to that relationship at all.	Family live too far away to visit by car	Circumstances other than driving cessation effect relations with others cont...	Changes cont...	NOT CESSATION PER SE. cont...
My children live in the Netherlands. I have a computer so I can contact them every day if I want to.	Family live overseas			

Appendix D: Case Profiles

P.121 is an 89 year old widow, her husband died close to one year before the interview. Her husband drove mostly, she had felt ambivalent about diving: sometimes really enjoying it, but in busy traffic and at certain road junctions she had felt nervous. She had been happy to travel as a passenger most of the time. The decision to give up driving, made five years ago, was easy. She said she struggled with driving for about six weeks and, in her words, the "final crisis came" one morning while driving in thick fog with a line of cars driving close behind her. She was thinking that she may cause "the most awful accident". She realised that the time had come to stop driving. Having given up driving, she felt relieved. Her health is generally good but she finds it difficult to walk. She lives alone but continues to maintain some contact with friends and family. Friends occasionally pick her up and take her to social gatherings.

P.123 temporarily gave up driving a year before the interview, after surgery on her knee, she was 84 years old. Initially, it was not her choice to stop driving and she intended to start driving again when her knee had recovered. Currently, she is still not driving and this is her choice. She has experienced worsened cervical spondylosis in her neck, and believes "It could be a danger to other people if I couldn't turn my neck to see other traffic coming, and I think it's unfair." Her husband drives; he takes her shopping, to church, and "other places".

P.125 is a74 year old woman who said driving had been an extremely important daily activity. Giving up driving had been her choice and she said it had not been as difficult as she had expected, she put this down to the timing (being older) and having a husband who still drove. She is pragmatic about no longer driving; noting that she uses other forms of transport, keeps busy, and does not dwell on the things she cannot change. After giving up driving she became more aware of others younger than herself who have not been able to drive for longer than her; this she said has taught her to appreciate what she has and accept things as they are.

P.130 had been a driver for 62 years and driving had been important for the convenience it afforded her. Just prior to giving up driving she found she rarely drove and maintaining the car had become "annoying". At 89 years old, she is widowed and lives on her own. She expected giving up driving to be easy, but it was not. She said the experience of giving up driving was not overly stressful, "it's not only giving up the car to me, but I'm quite happy to give up period. So it doesn't worry me." On the occasions when she would have driven, her daughter now drives her where she needs to

go and this, she said, has brought her closer to her daughter because they see each other more often.

P.131 and her husband spend most of their time together and have done so since retirement. Driving had been a convenience on the few occasions she wanted to go shopping on the spur of the moment, however "generally our lifestyle was such that we were always going places together". Driving had not been a pleasure; nevertheless she would not have given up driving if she had passed the eyesight test. She stated giving up driving was not difficult or stressful. She is able to walk and her husband drives her to the only social activity that she participates in independently of him. She is contemplating exploring public transport as an alternative means of transport.

P.135 and her husband both gave up driving after a car accident, around three years ago. Then, aged 68 years, she said she had "a realistic view of ageing" and having seen friends she considered to be unsafe drivers continue to drive she decided to "not [drive] beyond when I should". She was experiencing some vision impairment and had restricted driving to daylight hours only. Over the first year or so, no longer driving had had few impacts. However, as walking has become more difficult managing without a car has become harder. She maintains a positive outlook.

Eighty year old, **P.140**, widowed for many years gave up driving more than twenty years ago, while living in London, England. She drove mostly to go out in the evening and to visit friends who lived out of the city. Public transport was "so good" and cheap relative to the costs of running a car that she made the decision to stop driving. She said "When I had given [driving] up I found that really it wasn't [pause] it hadn't been important at all" and that "I don't think there were any negative aspects at all." It was after migrating to Canberra, Australia, five years ago that she found "it's not so easy here". She said that her son and his wife pick her up and help her a lot.

P.142 gave up driving three months before the interview. Aged 82, living on her own, and having had an accident (not driving related), she had decided to move from the New South Wales (NSW) coast to a retirement village in Canberra. She cites several reasons for giving up driving: it had been the "sensible" thing to do because she was moving to Canberra and she "wasn't capable of putting up with the roundabouts and Canberra drivers [and] I thought if I kept the car I would end up writing somebody or myself off." She stated "I know if I hadn't moved I'd still be driving." She stated she has not felt any negative or positive impacts of giving up driving, "it's just different" she said. She maintains her sense of independence using either buses or taxis and she is happy to accept lifts from others.

P.143 said driving was pretty important. She said "I could go shopping when I wanted to and go to meetings when I wanted to, and meet up with people that I wanted to meet up with." She gave up driving due to vision impairment, approximately one year before the interview; because driving had become a little "worrisome" and she wanted to avoid causing an accident. She said "I didn't feel too bad about giving up driving as such at the time." Her husband is available to take her places. However, she said "I really had to want to go somewhere to be bothered to ask my husband" and she is now disappointed about giving up driving because she feels "nailed" down and "dependent" on her husband. Around the time she gave up driving, P.143 began experiencing increasing difficulty performing activities of daily living, such as walking, doing the ironing and hanging out the laundry. She is 83 years of age.

Never married, 78 year old **P.146** started driving at age 15 years. She "always had the current model [of car]" enjoyed driving, "enjoyed driving fast", completed a number of advanced driving courses, and was proud of her "completely clean [driving] record". As a driver she sometimes felt "a bit put upon" and "I used to get sick of being asked to give someone a lift." In 1979, P.146 made the decision "overnight" to sell her car and not replace it with a newer model. She cited many reasons for this: the cost of a new car and depreciation in value; the expense of maintenance and petrol; not needing a car for three months of every year; and the hazards of leaving a car unattended, such as theft and damage. It was the economics of car ownership that persuaded her not to replace her older car. She reported experiencing "a blissful feeling of release" after selling her car, she replaced it with a bicycle and then a motorbike, then bus and taxi use. Periodically she would hire a car, but she has not hired a car since 2000 and would not hire one in the future because "I've lost my nerve". The decision to give up driving had never been taken; P.146 said "I didn't actually give [driving] up. It just has transpired that in the last 10 years I haven't got around to hiring another car. I haven't consciously given up. But the give up was the give up [of] the car".

P.147 only drove when she had to, such as to work or to the shops. Despite never having been keen on driving, she became dependent on her car. She stopped driving six months prior to the interview, mainly she said, because one of her sons suggested she was too old to be driving. She stated "Nothing was wrong with me and I've never had an accident or anything like that". She accepted that her reflexes had likely slowed and for this reason she decided to give up driving. At the time of giving up driving she moved from country NSW to Canberra to be closer to her family. She was emphatic that she would not have given up driving if she had not moved. P.147 is

an active 89 year old widow who values her independence highly. She reported, however, that "I'm completely dependent now on my family to take me anywhere" and she finds this frustrating. She is able to walk to shops and back, which she enjoys but it takes longer than she would like.

P.149 was the only male to volunteer to be interviewed for this study. He is a 66 year old divorcee who is legally blind and lives on his own. He spoke passionately about the importance of being able to drive and of being a driver. For many years he lived in rural Queensland where he said driving is "an essential part of you". He stopped driving because "I had a stroke and was blinded behind [pause] the right eye was completely shut out and the left eye went down to about 30 per cent. So it was virtually from one day to another" and his driving licence was withdrawn. His health is generally poor. He relies on friends and family to drive him to his voluntary work and to do his shopping, he uses an electric scooter to travel shorter distances, and he is able to walk very short distances. P.149 was strongly attached to the car he had owned for 23 years, after losing his licence he kept his car for a further three years, he said "I could still hop in it and switch it on and run it in the garage and those kinds of things. The psychological bond with the motor car was still there as far as that goes. The umbilical cord was still there."

Appendix E: Provisional List of Codes

Individual code & descriptive labels[1]			Codes[2]	Research Qu.[3]
DR:	Importance	Identity	DR-Import_identity	1
		Means	DR-Import_means	
		Not at all	DR-Import_None	
DR:	Difficulty giving up	Affirmative	DR-Diff_+	2
		Negative	DR-Diff_-	
DR:	Choice giving up	Completely	DR-Choice_Compl	3
		Somewhat	DR-Choice_Some	
		Not at all	DR-Choice_No	
DR:	Stressful giving up	Affirmative	DR-Stress_+	4
		Negative	DR-Stress_-	
DR:	Impacts of giving up	Mood	DR-Impact_Mood	5 (i)
		Out of home activity	DR-Impact _Activ	5 (ii)
		Role(s) in society	DR-Impact _Role	5 (iii)
		Other	DR-Impact _Other	5
		Controllable	DR-Impact _Contr	6
		Sense of Competence	DR-Impact _Comp	7
		Sense of Autonomy	DR-Impact _Auto	8
		Sense of Relatedness:		9
		Freq. of contact	DR-Impact_Relate_freq	
		Belonging	DR-Impact_Relate_belong	
Cope:	Behaviour	Assimilative	Cope-Behave_Assim	10
	Cognition	Accommodative	Cope-Cog_Accom	11
		Compromise	Cope-Cog_Compro	12

[1] This first column has an individual code and short descriptive labels for type of question that was asked and the main themes and sub-themes of those questions,
[2] This column contains the codes given to each descriptive label,
[3] This column shows the research question or sub-question from which the code is derived.

Continuing with the example in section 4.3.4, the 'impacts of giving up driving question' was considered a driving related question. Thus a category code – DR – indicated a driving related question. The main theme code – Impact – denoted the general question about an impact of giving up driving. The final section of code – Auto – indicated the specific theme underpinning the question, (e.g., regarding whether and in what way, or not, driving cessation had led to change in one's sense of autonomy). The last column in the table denotes the question number, signifying which question the code has been assigned to.

Appendix F: Provisional List of Code Definitions

Codes[1]	Research Qu.[2]	Definition
Driving Related		
DR-Import_identity	1	Participant identified with 'being' a driver
DR-Import_means		Being a driver was important as a means of transportation
DR-Import_None		Being a driver not important to the participant
DR-Diff_+	2	Deciding to give up driving was difficult
DR-Diff_-		Deciding to give up driving was not difficult
DR-Choice_Compl	3	'Proactives'
DR-Choice_Some		'Reluctant accepters'
DR-Choice_No		'Resisters'
DR-Stress_+	4	Giving up driving was stressful
DR-Stress_-		Giving up driving not was stressful
DR-Impact_Mood	5 (i)	Post-cessation change in mood
DR-Impact _Activ	5 (ii)	Post-cessation change in participation in life
DR-Impact _Role	5 (iii)	Post-cessation change in participant's roles in society
DR-Impact _Other	5	Other impacts of driving-cessation
DR-Impact _Contr	6	Controllability of driving-cessation impact(s)
DR-Impact _Comp	7	Impact of giving up driving on sense of competence
DR-Impact _Auto	8	Impact of giving up driving on sense of autonomy
DR-Impact_Relate_freq	9	Impact of giving up driving on frequency of social contact
DR-Impact_Relate_belong		Self-perceived impact of giving up driving on sense of belonging
Coping Related		
Cope-Behave_Assim	10	Assimilative coping strategies
Cope-Cog_Accom	11	Accommodative coping strategies
Cope-Cog_Compro	12	Compromise

[1] This column contains the codes given to each descriptive label in the Table in Appendix E,
[2] This column shows the research question or sub-question from which the code is derived.

Continuing with the example in section 4.3.4, the 'impacts of giving up driving question' was considered a driving related question. Thus a category code – DR – indicated a driving related question. The main theme code – Impact – denoted the general question about an impact of giving up driving. The final section of code – Auto – indicated the specific theme underpinning the question, (e.g., regarding whether and in what way, or not, driving cessation had led to change in one's sense of autonomy). The last column in the table denotes the question number, signifying which question the

code has been assigned to. The code DR-Impact /Auto, for example, was provisionally defined as 'Self-perceived impact of giving up driving on sense of autonomy'. The provisional list of code definitions was reworked by constant comparison to the text and newly emerging codes throughout data analysis, to provide further operational clarity to the definitions.

Appendix G: Glossary of Methodological Terms

Term	Meaning[1]
child node	A group of coded text similar to one another, stored in an electronic file using NVivo software
code	A label, which is an abbreviation, single word, or phrase that is summative and captures the essence of the portion of data that the code is assigned to
coding	Assigning labels to sections of text
conceptual category	A group of codes which are similar to one another
constant comparison	Comparing codes with one another and with new conceptual categories as they emerge
core theme	A group of issues or concerns which are similar to one another
dross	Data that is unusable in analysis because it does not relate to research questions, or represents incomplete thought, and/or, is unintelligible
memo writing	Can range in from informal jottings on a bit of paper, (e.g., brief reactions to the text and half-formed thoughts that may emerge at any time of the day, or night!), through to careful records of theoretical ideas, hypotheses about the text, and new questions as they arise
open coding	Text is divided into sections, codes are assigned to those sections of text which are similar in essence, and codes which are similar to one another are grouped into conceptual categories
parent node	A group of nodes which are similar to one another, stored in an electronic file using NVivo software
selective coding	Recurring issues or concerns in the text are identified and are coded for a core common theme
theme	Specific topic of discussion
theoretical code	A group of conceptual categories, organised to inform theory grounded in the text
theoretical coding	Conceptual categories, (the product of open coding), are developed and brought together into a theoretical structure
theoretical proposition	A broad statement of 'fact' grounded in the text

[1] Meanings obtained from multiple sources. Refer to in text citations.

Appendix H: Conceptual Exploration Methodology

The following method, involving ten steps, was developed and adhered to:

1. After the first reading of each text, notes were taken detailing the topics talked about in that interview. The researcher wrote memos regarding possible ways of categorising the text;
2. All texts were re-read and general themes within each text were generated and recorded, as the researcher worked through each text the list of themes grew, were coded and defined, and were added to the provisional list of codes;
3. One text was selected at random and read for a third time. Using NVivo software, the text was reviewed line-by-line to generate a list of core themes and themes to describe all aspects of the content, excluding 'dross' (cf. Burnard, 1991); with the view of possibly adding to the list of codes and the list of code definitions.
4. All themes in the newly generated list and the themes in the preliminary list of coded themes were examined and similar themes were grouped together;
5. The new list of themes was surveyed and those which were redundant, (i.e., the same or similar), were removed.
6. Two colleagues were invited to read the same randomly selected text line-by-line to generate themes independently and without access to this researcher's list. The three lists of themes were then compared and examined for similarity and difference. Differences were discussed and adjustments made to the list where necessary;
7. The researcher used the new list of coded themes to code the same randomly selected text;

8. Without access to this researcher's coded text; two other colleagues were invited to code the same randomly selected text using the list of coded themes generated in step 6 and used by the researcher in step 7. The three versions of the coded text were then compared and examined for similarity and difference. Adjustments were made to the coding where necessary and definitions of coding added or amended where necessary;
9. All texts were coded in line with Glaser and Strauss' (1967) recommendations, taking into consideration the list of codes and the list of code definitions from in step 8. Not all coded text contributed to the general understanding of the experience of giving up driving. Some text was considered dross. Texts were coded using the preliminary list of codes when there was a good fit. That is, then the operational definition of a code strongly reflected the meaning in a section of text. Thematic content analysis was used to determine meaning/code fit. When a section of text did not clearly match a preliminary code a new code was created and added to the list of codes.
10. Each coded section of text was placed together with similar coded sections of text to form 'child nodes' in NVivo. A review of the text coded as dross and left out of the analysis was conducted as a second check to ensure the text did not fit into any existing code and that the content was dross.

Appendix I: Data Matrix

Demographic Characteristics												
ID	P.121	P.123	P.125	P.130	P.131	P.135	P.140	P.142	P.143	P.146	P.147	P.149
Gender	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Male
Age	89	85	74	89	79	71	80	83	83	77	89	66
Dwelling	Community	ILU	ILU	ILU	ILU	Community	Community	ILU	ILU	Community	Community	Community
MS	Widowed	Married	Married	Widowed	Married	Married	Widowed	Widowed	Married	Never Wed	Widowed	Divorced
Driver	No	Yes, spouse	Yes, spouse	Yes, family	Yes, spouse	Yes, family	Yes, family	No	Yes, spouse	No	Yes, family	Yes, family
Being the Driver												
Driving Behaviour	Others drove	Often drove - for self & to help others Sometimes long distances	Important part of life	Used to use the car all the time	Rarely drove & only short distances	Not at night or interstate	Rarely - Only at night-time & out of London	Regular use / never gave it a thought	Regular use	Advanced driver	Regular use	Advanced driver, regular, long distances
Feelings about Driving	Enjoyed Nervous Worrying	Independence & saw self as driver	Independence	Convenience Habit & not a worry but car became a burden	Convenience, not a pleasure	Not important too nervous to drive now	Obligated & easier, not important to drive	Convenience Enjoyed the freedom Disliked & felt unsafe Unimportant now	Independence Convenience Slightly worrisome	Convenience Enjoyed but felt put-upon Loved 'cars', lost nerve now	Convenience Not all that keen	Independence Emotional bond An appendage Happiness Exhilaration
Thoughts about Driving	I don't think it was terribly important	Very important Necessity Helped others Got used to having a car	Important to be able to drive	Had car 62yr. Got used to having car Not interested in upkeep	More convenience rather than being important	Enabled her to do things & be who she is	Safer in own car & convenience. Parking a hassle.	Not import. now living in ILU. Too old/ too slow to drive now	Important for freedom	Just part of existing Wasn't inevitable	Necessity to get to the shops	Essential, appreciates cars, reliable, an appendage
Identified as a Driver	-	Y	-	-	-	-	-	-	-	Y	-	Y

ID	P.121	P.123	P.125	P.130	P.131	P.135	P.140	P.142	P.143	P.146	P.147	P.149
The Giving Up of Driving												
Proactives	Easy decision Necessity - health Own choice No stress	-	-	Own choice Happy to give up Older made it easier: no need to drive	-	Own choice Easy at first	Own choice Easy Hardly used car	Own choice to avoid an accident	Worried about safety re: eye-sight, didn't want to cause an accident	Own choice to give up car & just turned out didn't drive again	-	-
Autonomous Reluctant Accepters	-	Not initially Thought she'd drive one day Now her choice	Mostly her choice Somewhat difficult	-	-	-	-	-	-	-		-
Heteronomous Reluctant Accepters	-		-	-	Failed eye-sight test	-	-	-	-	-	Son said she shouldn't be driving at her age, her own choice	-
Resisters	-	-	-	-	-	-	-	-	-	-	-	Necessity - health decline Still resisting

ID	P.121	P.123	P.125	P.130	P.131	P.135	P.140	P.142	P.143	P.146	P.147	P.149
Impact on Mood												
None - Mild	Disappointed but ok	-	-	Relief to not have to look after the car but misses convenience	Not stressful , would be different if on own (worse)	-	More relaxed travelling, different if on own (worse)	Happy Not worried hasn't found Not at all inconvenient	-	The give up was the car, not driving, & that was blissful release	-	-
Moderate	-	Disappointing, feels sorry for spouse, frustration, impatient would be different if on own (worse)	Frustrated & disappointed	-	-	At first Ok, becoming more stressful, frustration, regret, dishonest & loss	-	-	-	-	Initially felt a bit lost, misses driving, frustrated	-
Intense	-	-	-	-	-	-	-	-	Less happy, not a relief, feels more dependent & useless	-	-	Devastating, fall in a hole, don't see way out, isolated, gaoled, fairly broody
Sense of Autonomy												
Autonomous Independence	-	-	Does what she want to do but less often	Maintained	Don't feel I've lost independence	-	Maintained	Maintained	-	Maintained	-	-
Autonomous Dependence	Is dependent on others but decided how & when	-	-	Relies on her daughter but feels in control	Happy to reply on spouse	Decides for self to asks for lifts when needed	-	-	-	-	-	Able to make shopping a social event

ID	P.121	P.123	P.125	P.130	P.131	P.135	P.140	P.142	P.143	P.146	P.147	P.149
Heteronomous Dependence	-	Reliant on spouse & dislikes it, can't choose timing	-	-	-	Misses driving as walking gets harder. Always on receiving end as walking gets harder	-	(Increased but not as a result of driving cessation)	Feels nailed down, has to rely on others & no control & less choice	-	Frustrated with & hates being dependent on family	Can't commit Lost spontaneity Lost freedom Has to depend on other & limited
Sense of Relatedness												
↑Belonging & ↑ Contact	Kids need to be more thoughtful	-	-	Grand-children help more & feels closer	-	-	-	Family make effort to visit rather than her visiting	-	-	-	Friends have rallied round & are closer
↓ Belonging & ↓ Contact	Feels like the old one, feeling out of it & missing out	Less social contact & less support but no change in relationship	Misses social contact & support previously experienced	-	-	Only with those people not that close to anyway	-	-	-	-	-	Social isolation & felling estranged
Belonging & ↓ Contact	-	-	-	-	-	-	-	-	-	Sees friends as often as she wants to	-	-
Role Change	Family look after her now rather than her looking after them	-	No longer able to share the load of driving	Didn't used to ask family for help and they offer more now	-	Taker instead of a giver	-	-	(Moving rather than driving cessation had an impact)	Felt like a pariah, the odd one out, others uneasy defensive, less burden on her to provide lifts	-	Sense of obligation, more onus on reciprocation

ID	P.121	P.123	P.125	P.130	P.131	P.135	P.140	P.142	P.143	P.146	P.147	P.149
Out-of home-Activities												
Loss in general	Given up Botanic Gardens	-	Lost social contact	-	-	Many losses, e.g. drive to lake & look at the view, out of the wind, peace, away from house	-	Can't pick friends up to visit.	Can't get to Scrabble on own, no browsing	Can't go to impromptu, sudden, spontaneous events	-	You can't go where you want to go when you want to go. Never at home before, now too much time at home
Social Contact losses	Misses out on social gatherings & craft activity	See friends less	Sees her cousin less	-	-	-	-	-	Sees friends less often	Sees friends less	-	Sees less of family and meets fewer people now
Barriers	Got to really want to do & be worth it, often too hard Can't get to activities "so often"	Can't go out on her own Shouldn't expect spouse to go too far for an hour or two, too much effort	-	Doesn't know Canberra well enough, not looking for opportunities anymore) (& ageing)	Without spouse she would ask herself if she could really be bothered	"It's just too, too much. So it limits what I can do"	Weather a barrier to outdoor activity, Would do more is wasn't in Canberra, in London it wasn't a problem	(Easier as lives in ILU with activities put on)	Had to really want to go to ask spouse for a lift	Couldn't carry things without a car-boot	Used to dependence on her car, public transport too much hassle	"it becomes problematic and when it becomes problematic you leave it"

ID	P.121	P.123	P.125	P.130	P.131	P.135	P.140	P.142	P.143	P.146	P.147	P.149
Other Influences	-	-	Being married makes a difference as spouse drives	-	(To do with loss of eye-sight rather than driving)	-	London, not a problem	Does different & things due to ILU lifestyle	-	-	Does ILU activities. Always active	-
No / Minimal Impact												
Summary	Relatedness Competence	Roles in society Going out in general Relatedness Competence	Autonomy Competence	Mood Autonomy Competence Out-of-home activity	Mood Autonomy Competence Relatedness Out-of-home activity	Mood (initially) Competence Out-of-home activity	Autonomy Competence Relatedness "I don't think there were any negative aspects at all"	Mood, Competence Out-of-home activity There were changes but they were neutral	Competence Relationships	Mood, , Autonomy Competence	Competence Relatedness Out-of-home activity	-
Coping												
Assimilative & proximal												
Lifts	√	√	√	√	√	√	√	-	√	-	√	√
Car-pool	-	-	-	-	-	-	-	√	-	-	-	√
Bus	-	-	-	-	√	-	√	√	-	√	√	√
Com. Trans	-	-	-	-	-	-	-	-	-	-	√	-
Taxi	√	-	-	-	-	√	√	√	-	√	-	-
Scooter	-	-	-	-	-	-	-	-	-	√	-	√
Walking	√	-	√	-	-	√	-	√	-	√	√	-
Shop locally	√	√	-	-	√	-	-	√	-	-	√	-
Shop regularly	√	√	-	-	-	-	-	-	-	-	-	-
Internet shop	-	-	-	-	-	√	-	-	-	-	-	-
Swop services	-	-	-	-	-	√	-	-	-	-	-	-
Sub. Activities	-	√	-	-	-	√	-	√	√	√	√	√
Plan trips	-	-	-	-	√	√	√	√	√	√	√	√
With spouse	-	-	√	-	√	-	-	-	√	-	-	-

ID	P.121	P.123	P.125	P.130	P.131	P.135	P.140	P.142	P.143	P.146	P.147	P.149
Assimilative & distal												
	-	-	-	Moved house	Gets spouse interested in what she is interested in	Reads while waiting	Plans the day	-	-	Lobbies Action buses, doesn't rely on buses	-	Got a pub card, pursue treatment, finds like-minded people
Accommodative & proximal												
	Acceptance, got used to it, part of getting older, do without	Acceptance, positive outlook, optimism, ↓ comparison	Acceptance, appreciate people, → soc. Comparison	-	Negotiates	Positive outlook, acceptance	-	Minimises: "Not a lot to cope with"	Down-grades value, distracts thoughts, optimism	Challenges negative thinking	Compromise , positive outlook, acceptance, de-values	-
Accommodative & distal												
	Part of aging Acceptance, Tells self to get on with it. Keeps busy, doesn't dwell, tells people how she feels	Doesn't dwell on things	Tells people how she feels, doesn't dwell,	Loss of interest in life generally	Compromise generally	Unburdens self to others	-	Age means it doesn't matter	-	Vents, laughs, puts situation into perspective	Puts things out of her mind, values what she does have, accepts	Tries to get over sense of pride
Positive Impacts												
Feelings	Relief	Appreciates others more	-	Less worry about having an accident	Driving wasn't a pleasure	Less worry about the car, less anxiety about having an accident	Alternative travel more relaxing (when it is available)	-	Less worry	Happiness, "blissful release"	-	-

ID	P.121	P.123	P.125	P.130	P.131	P.135	P.140	P.142	P.143	P.146	P.147	P.149
Behaviours	Not having to drive	-	Doesn't have to manage the car	-	-	-	Can read while she travels	-	-	Doesn't have to provide lifts or clean the car	Gets more exercise now	-
Financial	-	-	-	-	-	"we save a lot of money"	"Running a car is a costly business"	-	-	"I was throwing away money on it"	-	"Financial... no registration, no insurance, no petrol money"
Personal growth	-	Taught her acceptance	-	-	-	-	-	-	-	-	-	-

NB: Information for this matrix was transcribed from NVivo-8. Due to formatting difficulties, abbreviated and salient information is presented
MS = Marital Status; Driver = Availability of another driver; Com. Trans = Community Transport.

Appendix J: Study Information Sheet

The Psychosocial Impact of Driving Cessation in Later Life Study

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We are asking for your help with a research study investigating the impact of driving cessation on adults aged 65 or older. The purpose of this project is to explore the relationship between driving status, coping styles and well-being. The project has the potential to inform development of interventions designed to help people adjust to life after retiring from driving. Furthermore, identifying the factors that account for the negative impacts on mental health related to driving cessation will inform future research in this area. We are looking for older adults who still drive and older adults who are ex-drivers. You are considered an ex-driver if you have not driven for at least one month and would not drive today.

Participation in this study involves completing a questionnaire, which is expected to take about 30 minutes. The questionnaire asks driving related questions, questions about physical and mental health and physical functioning, personality traits, ways of coping, and satisfaction with life. The questionnaire may be completed on-line or using pen and paper. Please note that no information that could directly identify you will be stored with the completed questionnaire.

Your participation in this study is completely voluntary. You may refuse to participate, refuse to answer any questions or withdraw from the study at any time with no effect. If you withdraw at a later date and do not want your data used in the study, it will be removed and securely destroyed.

Risks and Benefits of the Study
There are no known risks to your participation in this study. Some of the questions are personal in nature. However, you can stop participating at any time, and refuse to answer any questions you find uncomfortable.

Confidentiality
All possible steps will be taken to ensure the information you provide is kept confidential. Any participant contact information and the questionnaires will be kept in separate locked cabinets in a locked room at the ANU, and only the investigator will have access to them. Completed on-line questionnaires will be password protected.

Statement of Privacy
Completed questionnaires will be held in accordance with the *National Statement on Ethical Conduct in Human Research* (2007) (http://www.nhmrc.gov.au/publications/synopses/e72syn.htm), and The Australian National University *Responsible Practice of Research Policy* (2009) (http://policies.anu.edu.au/policies/responsible_practice_of_research/policy). Reports resulting from this data may be submitted for publication; however, individual participants will not be identifiable.

It is possible that some questions could raise concerns about yourself or about others. If this is so, contact details of several organisations that provide assistance and/or information are listed below. Your general practitioner may also be able to help with any problems. You are also welcome to contact Ms Walker if you are having difficulty obtaining the help or advice that you need.

If you are willing to take part in this research, please contact Ms Walker at the Australian National University.

Thank you for taking the time to read about this research study.

Ms Sarah Walker

Seeking Help or Support
If you or anyone you know is suffering from emotional distress, for example depressed or anxious mood, we strongly encourage you to seek help and support. Several options are available to you. You can speak with your family doctor or any healthcare professional you are comfortable with and they can direct you to the services you need. Alternatively, you can contact:

Lifeline at **13 11 14**
http://www.lifeline.org.au/
Beyondblue
http://www.beyondblue.org.au

Questions
If you have any questions about this study or about participating, please contact Sarah Walker at (02) 6125 0018 or sarah.walker@anu.edu.au

This research project is carried out in accordance with the ethical guidelines set out by the National Health and Medical Research Council. Should you have any complaints or concerns about the manner in which this project is conducted, please do not hesitate to contact the researchers in person, or you may prefer to contact ethics committee at the following address:

Human Ethics Officer,
Human Research Ethics Committee,
Australian National University.
Tel: 02 6125 7945.
Email: Human.Ethics.Officer@anu.edu.au

Appendix K: Ex-Driver Questionnaire

(Please note the formatting of the questionnaire has been altered to accommodate the formatting of the thesis.)

For the following questions, please mark a cross (**X**) in the appropriate box indicating your answer or write the answer in the space provided.

These questions ask about your personal demographics

1. What is your gender? Male ☐1 Female ☐2

2. What is your age? ☐ Years ☐ Months

3. What is your current marital status?

Married/de-facto ☐1
Separated/divorced ☐2
Widowed ☐3
Never Married ☐4

4. Do you live alone or do you live with others?

Live alone ☐1 Live with others ☐$_2$

5. What grade of school did you complete? ☐ Grade

6. (a) Have you completed any courses after school?

No	☐1	
Yes, trade/technical	☐2	Specify qualification: _____
Yes, college/university	☐3	Specify qualification: _____

(b) Which of the following best describes your situation:

Employed full-time	☐1
Employed part-time/casual	☐2
Retired, self-funded	☐3
Retired, Government Pension	☐4
Retired, part self-funded/part Government Pension	☐5
Other	☐6

The next two questions are about financial hardship

7. Over the past 12 months have you:

(a) Had enough money to meet your needs?

Yes ☐1 No ☐2

(b) Had difficulties paying the monthly bills?

Yes ☐1 No ☐2

The next four questions are about access to transport, goods and services, and opportunities for social interaction

8. Do you have ready access to a driver?

Yes ☐1 No ☐2

9. Do you have ready access to public transport?

Yes ☐1 No ☐2

10. Please mark a cross (X) next to the statement that best indicates how much access you have to goods and services, from highly accessible through to very remote.

Highly Accessible - relatively unrestricted accessibility to a wide range of goods and services ☐1

Accessible - some restrictions to accessibility of some goods and services ☐2

Moderately Accessible - significantly restricted accessibility of goods and services ☐3

Remote - very restricted accessibility of goods and services ☐4

Very Remote - very little accessibility of goods and services ☐5

11. Please mark a cross (**X**) next to the statement that best indicates **how much access** you have to social interaction, from highly accessible through to very remote.

Highly Accessible - relatively unrestricted accessibility to a wide range of social interaction	☐1
Accessible - some restrictions to accessibility of some social interactions	☐2
Moderately Accessible - significantly restricted accessibility of social interaction	☐3
Remote - very restricted accessibility of social interaction	☐4
Very Remote - very little accessibility of social interaction	☐5

The next questions are about driving and giving up driving

12. Over the 6 months before you gave up driving, on average, would you say you personally drove:

One or fewer days per week	☐1
Two or three days per week	☐2
Four or five days per week	☐3
Six or more days per week	☐4

13. How many years/months ago did you give up driving? [ ] Years [ ] Months

We would like to ask you about your experiences of giving up driving

Please read the questions below. Mark a cross (**X**) next to each question to **indicate the extent to which you had that experience**, from *Not at all* to *Very much.*

14.	**To what extent ...**	**Not at all**	**Slightly**	**Moderately**	**Somewhat**	**Quite a bit**	**Very much**
a.	did you experience any difficulties once you stopped driving?	☐1	☐2	☐3	☐4	☐5	☐6
b.	did you experience changes in your relationships as a result of giving up driving?	☐1	☐2	☐3	☐4	☐5	☐6
c.	has giving up driving affected your health?	☐1	☐2	☐3	☐4	☐5	☐6
d.	have you been concerned about giving up driving?	☐1	☐2	☐3	☐4	☐5	☐6
e	did you make plans for giving up driving?	☐1	☐2	☐3	☐4	☐5	☐6
f.	did you experience any benefits of giving up driving?	☐1	☐2	☐3	☐4	☐5	☐6

The next items relate to whether or not you felt any pressure to give up driving

Here are a number of statements related to 'giving up driving' that may or may not apply to you. Mark a cross (**X**) next to each statement to **indicate the extent to which you agree or disagree with that statement,** from *Strongly agree* to *Strongly disagree.* Do not spend too much time on any statement.

15.		**Strongly agree**	**Moderately agree**	**Agree a little**	**Neither agree nor disagree**	**Disagree a little**	**Moderately disagree**	**Strongly disagree**
a.	The *original* idea about giving up driving was mine, rather than someone else's.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
b.	Giving up driving was something I simply *wanted* to do.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
c.	One or more members of my family urged me to give up driving.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
d.	One or more members of my family pushed or pressured me to give up driving.	☐1	☐2	☐3	☐4	☐5	☐6	☐7

Continued from previous page

15.		Strongly agree	Moderately agree	Agree a little	Neither agree nor disagree	Disagree a little	Moderately disagree	Strongly disagree
e.	My friends/acquaintances urged me to give up driving.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
f.	My doctor/other professionals urged me to give up driving.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
g.	I felt that I could have continued to drive as long as *I* wanted to.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
h.	I felt free to make plans about giving up driving the way *I* wanted to.	☐1	☐2	☐3	☐4	☐5	☐6	☐7
i.	I first thought of giving up driving because I felt I *had to* give up driving.	☐1	☐2	☐3	☐4	☐5	☐6	☐7

The following questions are about health and physical functioning

16. In general, would you say your health is:

Go to this question next →

Excellent	☐1
Very good	☐2
Good	☐3
Fair	☐4
Poor	☐5

17. Compared to one year ago, how would you rate your health in general now?

Much better now than one year ago	☐1
Somewhat better now than one year ago	☐2
About the same as one year ago	☐3
Somewhat worse than one year ago	☐4
Much worse than one year ago	☐5

Below is a list of medical conditions. Please mark a cross (**X**) in the *Yes* box next to each of the medical conditions **you have been diagnosed with by a medical doctor or specialist** and mark a cross (**X**) in the *No* box next to each of the medical conditions you have been **not been diagnosed with.**

18.	Have you have been diagnosed with this medical condition by a medical doctor or specialist?				
a.	Asthma	Yes	☐1	No	☐0
b.	Bronchitis	Yes	☐1	No	☐0
c.	Emphysema	Yes	☐1	No	☐0
d.	Cancer	Yes	☐1	No	☐0
e.	Atherosclerotic heart disease	Yes	☐1	No	☐0
f.	Cardiovascular disease	Yes	☐1	No	☐0
g.	Cirrhosis-hepatitis	Yes	☐1	No	☐0
h.	Kidney disease	Yes	☐1	No	☐0
i.	Parkinson's disease	Yes	☐1	No	☐0
j.	Diabetes	Yes	☐1	No	☐0

The following questions ask about some of the activities of daily living, things that we all need to do as part of our daily lives. We would like to know if you can do these activities without any help at all, or if you need some help to do them, or if you can't do them at all. Be sure to **read all answer choices** before please marking a cross (**X**) next to the answer that best describes **how able you are to perform that activity**.

19.		Please read all answer choices before responding	
a.	I can use the telephone …	without help, including looking up numbers and dialling	☐3
		with some help (I can answer or dial emergency numbers)	☐2
		I'm not able to use the telephone	☐1
b.	I can get to places out of walking distance …	without help (drive own car, travel alone on buses or taxis)	☐3
		with some help (to assist or go with me when travelling)	☐2
		I'm not able to travel unless specialised arrangements are made	☐1
c.	(With transport) I can go shopping for groceries or clothes …	without help	☐3
		with some help (I need someone to go with me)	☐2
		I am completely unable to do any shopping	☐1
d.	I can prepare my own meals …	without help (plan and cook full meals myself)	☐3
		with some help (can prepare some things but not full meals)	☐2
		I am completely unable to prepare any meals	☐1
e.	I can do my housework …	without help (can clean floors, etc)	☐3
		with some help (can do light housework but need help with heavy work)	☐2
		I am completely unable to do any housework	☐1
f.	I can take my own medicine …	without help (in the right doses and at the right time)	☐3
		with some help (if someone prepares it for me and reminds me)	☐2
		I am completely unable to take my own medicine	☐1

Continued from previous page

19.		**Please read all answer choices before responding**	
g.	I can handle my own money …	without help (write cheques, pay bills etc)	☐3
		with some help (manage day to day buying but need help with managing paying my bills)	☐2
		I am completely unable to handle my own money	☐1
h.	I can eat …	without help (I am able to feed myself completely)	☐3
		with some help (need help with cutting, etc)	☐2
		I am completely unable to feed myself	☐1
i.	I can dress and undress myself …	without help (pick out clothes, etc)	☐3
		with some help	☐2
		I am completely unable to dress and undress myself	☐1
j.	I can take care of my own appearance, for example combing my hair and (for men) shaving …	without help	☐3
		with some help	☐2
		I am completely unable to maintain my appearance myself	☐1
k.	I can walk …	without help (except from a cane)	☐3
		with some help (from a person or use of a walker, etc)	☐2
		I am completely unable to walk	☐1
l.	I can get in and out of bed …	without help or aids	☐3
		with some help (either from a person or some device)	☐2
		I am totally dependent on someone else to lift me	☐1
m.	I can take a bath or shower	without help	☐3
		with some help (getting in or out of the bath or with aids)	☐2
		I am completely unable to bathe myself	☐1

These questions are about personality traits

Here are a number of personality traits that may or may not apply to you. Mark a cross (**X**) next to each statement to **indicate the extent to which you agree or disagree**, from *Strongly agree* to *Strongly disagree*, with that statement. You should rate the extent to which the pair of traits applies to you, even if one characteristic applies more strongly than the other.

20.	**I see myself as ...**	**Strongly agree**	**Moderately agree**	**Agree a little**	**Neither agree nor disagree**	**Disagree a little**	**Moderately disagree**	**Strongly disagree**
a.	Extraverted, enthusiastic	☐1	☐2	☐3	☐4	☐5	☐6	☐7
b.	Critical, quarrelsome	☐1	☐2	☐3	☐4	☐5	☐6	☐7
c.	Dependable, self-disciplined	☐1	☐2	☐3	☐4	☐5	☐6	☐7
d.	Anxious, easily upset	☐1	☐2	☐3	☐4	☐5	☐6	☐7
e.	Open to new experiences, complex	☐1	☐2	☐3	☐4	☐5	☐6	☐7
f.	Reserved, quiet	☐1	☐2	☐3	☐4	☐5	☐6	☐7
g.	Sympathetic, warm	☐1	☐2	☐3	☐4	☐5	☐6	☐7
h.	Disorganised, careless	☐1	☐2	☐3	☐4	☐5	☐6	☐7
i.	Calm, emotionally stable	☐1	☐2	☐3	☐4	☐5	☐6	☐7
j.	Conventional, uncreative	☐1	☐2	☐3	☐4	☐5	☐6	☐7

The following statements are about how you feel about different aspects of your life

Please read each of the following items carefully, thinking about how it relates to your life, and then indicate how **true** it is for you. Use the following scale to respond: *Not at all true* through to *Very true* and each point in between.

21.	**How true is this for you?**	**Not at all true**			**Somewhat true**			**Very true**
a.	I feel like I am free to decide for myself how to live my life	☐1	☐2	☐3	☐4	☐5	☐6	☐7
b.	I really like the people I interact with	☐1	☐2	☐3	☐4	☐5	☐6	☐7
c.	Often, I do not feel very competent	☐1	☐2	☐3	☐4	☐5	☐6	☐7
d.	I feel pressured in my life	☐1	☐2	☐3	☐4	☐5	☐6	☐7
e.	People I know tell me I am good at what I do	☐1	☐2	☐3	☐4	☐5	☐6	☐7
f.	I get along with people I come into contact with	☐1	☐2	☐3	☐4	☐5	☐6	☐7
g.	I pretty much keep to myself and don't have a lot of social contacts	☐1	☐2	☐3	☐4	☐5	☐6	☐7
h.	I generally feel free to express my ideas and opinions	☐1	☐2	☐3	☐4	☐5	☐6	☐7
i.	I consider the people I regularly interact with to be my friends	☐1	☐2	☐3	☐4	☐5	☐6	☐7

Continued from previous page

21.	**How true is this for you?**	**Not at all true**			**Somewhat true**			**Very true**
j.	I have been able to learn interesting new skills recently	☐1	☐2	☐3	☐4	☐5	☐6	☐7
k.	In my daily life, I frequently have to do what I am told	☐1	☐2	☐3	☐4	☐5	☐6	☐7
l.	People in my life care about me	☐1	☐2	☐3	☐4	☐5	☐6	☐7
m.	Most days I feel a sense of accomplishment from what I do	☐1	☐2	☐3	☐4	☐5	☐6	☐7
n.	People I interact with on a daily basis tend to take my feelings into consideration	☐1	☐2	☐3	☐4	☐5	☐6	☐7
o.	In my life I do not get much of a chance to show how capable I am	☐1	☐2	☐3	☐4	☐5	☐6	☐7
p.	There are not many people that I am close to	☐1	☐2	☐3	☐4	☐5	☐6	☐7
q.	I feel like I can pretty much be myself in my daily situations	☐1	☐2	☐3	☐4	☐5	☐6	☐7
r.	The people I interact with regularly do not seem to like me much	☐1	☐2	☐3	☐4	☐5	☐6	☐7

Continued from previous page

21.	**How true is this for you?**	**Not at all true**			**Somewhat true**			**Very true**
s.	I often do not feel very capable	☐1	☐2	☐3	☐4	☐5	☐6	☐7
t.	There is not much opportunity for me to decide for myself how to do things in my daily life	☐1	☐2	☐3	☐4	☐5	☐6	☐7
u.	People are generally pretty friendly towards me	☐1	☐2	☐3	☐4	☐5	☐6	☐7

For each question, please **indicate how often you feel that way**, either *Often*, *Some of the time* or *Hardly ever or never*, by marking a cross (**X**) in the box next to the appropriate question.

22.		**Often**	**Some of the time**	**Hardly ever or never**
a.	How often do you feel you lack companionship?	☐1	☐2	☐3
b.	How often do you feel left out?	☐1	☐2	☐3
c.	How often do you feel isolated from others?	☐1	☐2	☐3

Tenacious Goal Pursuit scale

Mark a cross (**X**) next to each statement to **indicate the extent to which you agree or disagree**, from *Strongly agree* to *Strongly disagree*, with that statement

23.		**Strongly agree**	**Moderately agree**	**Neither agree nor disagree**	**Moderately disagree**	**Strongly disagree**
a.	Life is much more pleasurable when I do not expect too much from it	☐1	☐2	☐3	☐4	☐5
b.	To avoid disappointment, I don't set my goals too high	☐1	☐2	☐3	☐4	☐5
c.	I tend to lose interest in matters where I cannot keep up with others	☐1	☐2	☐3	☐4	☐5
d.	I find it easy to give up a wish if it seems very difficult to fulfill	☐1	☐2	☐3	☐4	☐5
e.	When I run up against overwhelming obstacles, I prefer to look for a new goal	☐1	☐2	☐3	☐4	☐5
f.	When I have tried hard but cannot solve a problem, I find it easy just to leave it unsolved	☐1	☐2	☐3	☐4	☐5
g.	I avoid struggling with problems for which I have no solutions	☐1	☐2	☐3	☐4	☐5

Continued from previous page

23.		Strongly agree	Moderately agree	Neither agree nor disagree	Moderately disagree	Strongly disagree
h.	If I find I cannot reach a goal, I prefer to change my goal rather than to keep trying	☐1	☐2	☐3	☐4	☐5
i.	Faced with a serious problem, I sometimes pay no attention to it	☐1	☐2	☐3	☐4	☐5
j.	The harder a goal is to achieve, the more appeal it has to me	☐1	☐2	☐3	☐4	☐5
k.	I can be very stubborn in pursuing my goals	☐1	☐2	☐3	☐4	☐5
l.	When faced with obstacles, I usually increase my efforts	☐1	☐2	☐3	☐4	☐5
m.	Even when things seem hopeless, I keep on fighting to reach my goals	☐1	☐2	☐3	☐4	☐5
n.	Even when a situation seems hopeless, I still try to master it	☐1	☐2	☐3	☐4	☐5
o.	I stick to my goals and projects even in face of great difficulties	☐1	☐2	☐3	☐4	☐5

Flexible Goal Adjustment scale

Mark a cross (**X**) next to each statement to **indicate the extent to which you agree or disagree**, from *Strongly agree* to *Strongly disagree*, with that statement

24.		**Strongly agree**	**Moderately agree**	**Neither agree nor disagree**	**Moderately disagree**	**Strongly disagree**
a.	When I get stuck on something, it's hard for me to find a new approach	☐1	☐2	☐3	☐4	☐5
b.	It is difficult for me to accept a setback or defeat	☐1	☐2	☐3	☐4	☐5
c.	I am never really satisfied unless things come up to my wishes completely	☐1	☐2	☐3	☐4	☐5
d.	I create problems for myself because of my high demands	☐1	☐2	☐3	☐4	☐5
e.	When everything seems to be going wrong, I can usually find a positive side	☐1	☐2	☐3	☐4	☐5
f.	I usually find something positive even in giving up something I cherish	☐1	☐2	☐3	☐4	☐5
g.	I find that even life's troubles have a bright side	☐1	☐2	☐3	☐4	☐5

Continued from previous page

24.		Strongly agree	Moderately agree	Neither agree nor disagree	Moderately disagree	Strongly disagree
h.	When I get into serious trouble, I immediately look at how to make the best out of the situation	☐1	☐2	☐3	☐4	☐5
i.	I find it easy to see something positive even in a serious mishap	☐1	☐2	☐3	☐4	☐5
j.	I adapt quite easily to changes in plans or circumstances	☐1	☐2	☐3	☐4	☐5
k.	Faced with a disappointment, I remind myself that other things in life are just as important.	☐1	☐2	☐3	☐4	☐5
l.	If I don't readily get something I want, I pursue it with patience	☐1	☐2	☐3	☐4	☐5
m.	I usually have no difficulty in recognizing my limits	☐1	☐2	☐3	☐4	☐5
n.	In general, I am not upset very long about an opportunity passed up	☐1	☐2	☐3	☐4	☐5
o.	After a serious setback, I soon turn to new tasks	☐1	☐2	☐3	☐4	☐5

The next questions are about psychological health

Please read and mark a cross (**X**) next to each statement indicating how much the statement applied to you ***over the past week***, from *Rarely or none of the time* to *Most or all of the time*. There are no right or wrong answers. Do not spend too much time on any statement.

25.	**Over the past week …**	**Rarely or none of the time (<1 day)**	**Some or a little of the time (1-2 days)**	**Occasionally or a moderate amount of the time (3-4 days)**	**Most or all of the time (5-7 days)**
a.	I was bothered by things that don't usually bother me	☐1	☐2	☐3	☐4
b.	I did not feel like eating; my appetite was poor	☐1	☐2	☐3	☐4
c.	I felt that I could not shake off the blues even with the help of my family or friends	☐1	☐2	☐3	☐4
d.	I felt that I was just as good as other people	☐1	☐2	☐3	☐4
e.	I had trouble keeping my mind on what I was doing	☐1	☐2	☐3	☐4
f.	I felt depressed	☐1	☐2	☐3	☐4
g.	I felt everything I did was an effort	☐1	☐2	☐3	☐4
h.	I felt hopeful about the future	☐1	☐2	☐3	☐4

Continued from the previous page

25.	**Over the <u>past week</u> …**	**Rarely or none of the time (<1 day)**	**Some or a little of the time (1-2 days)**	**Occasionally or a moderate amount of the time (3-4 days)**	**Most or all of the time (5-7 days)**
i.	I thought my life had been a failure	☐1	☐2	☐3	☐4
j.	I felt fearful	☐1	☐2	☐3	☐4
k.	My sleep was restless	☐1	☐2	☐3	☐4
l.	I was happy	☐1	☐2	☐3	☐4
m.	I talked less than usual	☐1	☐2	☐3	☐4
n.	I felt lonely	☐1	☐2	☐3	☐4
o.	People were unfriendly	☐1	☐2	☐3	☐4
p.	I enjoyed life	☐1	☐2	☐3	☐4
q.	I had crying spells	☐1	☐2	☐3	☐4
r.	I felt sad	☐1	☐2	☐3	☐4
s.	I felt that people disliked me	☐1	☐2	☐3	☐4
t.	I could not get "going"	☐1	☐2	☐3	☐4

These questions are about self-esteem

Below is a list of statements dealing with your general feelings about yourself. Please mark a cross (**X**) next to each statement indicating if you *Strongly agree*, *Agree*, *Disagree*, or *Strongly disagree*.

26.		**Strongly agree**	**Agree**	**Disagree**	**Strongly disagree**
a.	I feel that I'm a person of worth, at least on an equal plane with others	☐1	☐2	☐3	☐4
b.	I feel that I have a number of good qualities	☐1	☐2	☐3	☐4
c.	All in all, I am inclined to feel that I an a failure	☐1	☐2	☐3	☐4
d.	I am able to do things as well as most other people	☐1	☐2	☐3	☐4
e.	I feel I do not have much to be proud of	☐1	☐2	☐3	☐4
f.	I take a positive attitude towards myself	☐1	☐2	☐3	☐4
g.	On the whole, I am satisfied with myself	☐1	☐2	☐3	☐4
h.	I wish I could have more respect for myself	☐1	☐2	☐3	☐4
i.	I certainly feel useless at times	☐1	☐2	☐3	☐4
j.	At times I think I am no good at all	☐1	☐2	☐3	☐4

We would now like to ask you about your emotions

The following questions ask about how you have been feeling during the ***past 30 days***. For each question, please mark a cross (**X**) under the heading that best describes how often you has this feeling.

27.	**During the *30 days*, how much did you feel ...**	**Very slightly, or not at all**	**A little**	**Moderately**	**Quite a bit**	**Very much**
a.	Interested	☐1	☐2	☐3	☐4	☐5
b.	Distressed	☐1	☐2	☐3	☐4	☐5
c.	Excited	☐1	☐2	☐3	☐4	☐5
d.	Upset	☐1	☐2	☐3	☐4	☐5
e.	Strong	☐1	☐2	☐3	☐4	☐5
f.	Guilty	☐1	☐2	☐3	☐4	☐5
g.	Scared	☐1	☐2	☐3	☐4	☐5
h.	Hostile	☐1	☐2	☐3	☐4	☐5
i.	Enthusiastic	☐1	☐2	☐3	☐4	☐5
j.	Proud	☐1	☐2	☐3	☐4	☐5
k.	Irritable	☐1	☐2	☐3	☐4	☐5
l.	Alert	☐1	☐2	☐3	☐4	☐5
m.	Ashamed	☐1	☐2	☐3	☐4	☐5
n.	Inspired	☐1	☐2	☐3	☐4	☐5
o.	Nervous	☐1	☐2	☐3	☐4	☐5

Continued from the previous page

27.	**During the 30 days, how much did you feel ...**	**Very slightly, or not at all**	**A little**	**Moderately**	**Quite a bit**	**Very much**
p.	Determined	☐1	☐2	☐3	☐4	☐5
q.	Attentive	☐1	☐2	☐3	☐4	☐5
r.	Jittery	☐1	☐2	☐3	☐4	☐5
s.	Active	☐1	☐2	☐3	☐4	☐5
t.	Afraid	☐1	☐2	☐3	☐4	☐5
u.	Happy	☐1	☐2	☐3	☐4	☐5
v.	Tense	☐1	☐2	☐3	☐4	☐5
w.	Calm	☐1	☐2	☐3	☐4	☐5
x.	Sad	☐1	☐2	☐3	☐4	☐5
y.	Content	☐1	☐2	☐3	☐4	☐5
z.	Disappointed	☐1	☐2	☐3	☐4	☐5

These questions are about your satisfaction with life

Please indicate, by marking with a cross(X), your **level of agreement** with the following statements.

28.		**Strongly disagree**	**Disagree**	**Slightly disagree**	**Neither agree nor disagree**	**Slightly agree**	**Agree**	**Strongly agree**
a.	In most ways my life is close to my ideal	☐1	☐2	☐3	☐4	☐5	☐6	☐7
b.	The conditions of my life are excellent	☐1	☐2	☐3	☐4	☐5	☐6	☐7
c.	I am satisfied with my life	☐1	☐2	☐3	☐4	☐5	☐6	☐7
d.	So far I have gotten the important things I want in life	☐1	☐2	☐3	☐4	☐5	☐6	☐7
e.	If I could live my life over, I would change almost nothing	☐1	☐2	☐3	☐4	☐5	☐6	☐7

The following questions are about your engagement in life

Please answer the following questions about yourself by indicating, by making a cross (X), the **extent of your agreement** using the following scale: *strongly disagree, disagree, neutral, agree, and strongly agree.* Be as honest as you can throughout, and try not to let your response to one question influence your response to other questions. There are no right or wrong answers.

29.		**Strongly disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
a.	There is not enough purpose in my life	☐1	☐2	☐3	☐4	☐5
b.	To me, the things I do are all worthwhile	☐1	☐2	☐3	☐4	☐5
c.	Most of what I do seems trivial and unimportant to me	☐1	☐2	☐3	☐4	☐5
d.	I value my activities a lot	☐1	☐2	☐3	☐4	☐5
e.	I don't care very much about the things I do	☐1	☐2	☐3	☐4	☐5
f.	I have lots of reasons for living	☐1	☐2	☐3	☐4	☐5

30. What is your postcode? ☐

Thank you for completing this questionnaire

Please place your completed questionnaire in the addressed and postage paid envelope provided and mail to Sarah Walker at the Australian National University

If you have any questions about this questionnaire or about what is required, please contact Sarah Walker on (02) 6125 0018 or email: sarah.walker@anu.edu.au. If you have any questions or complaints about the study, please contact Dr. Kaarin Anstey at the Australian National University on (02) 6125 8410 or email kaarin.anstey@anu.edu.au. If you have any concerns regarding the way the research was conducted you can also contact the Australian National University Human Ethics Officer at the ANU Research Office on (02) 6125 3427 or email human.ethics.officer@anu.edu.au